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K.L. JOHAR

Management Education in Changing Scenario

R.M. CHIDAMBARAM

Academic Research — Issues of Concern

N.M. MUNSHI

University : Management and Structural Changes

MAHESHKUMAR RAJYAGURU

Computer Application in Educational Management

R.A. MASHELKAR

The Meaning of Globalisation

—Convocation Address

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Last date for receiving requests for application forms : Monday, 2 March 1998.
Last date for receiving completed application forms : Friday, 27 March 1998.
Date of selection tests : Sunday, 10 May 1998.

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IN THIS ISSUE

Management Education in Changing Scenario 1
Academic Research — Issues of Concern 3
University . Management and Structural Changes 5
Computer Application in Educational Management 12
Convocation
SNDT Women's University, Mumbai 14
Campus News
Environmental Law for Environmental Management 17
R&D-Industry Meet 18
Silkworms as Vaccine Factories 18
East Zone Inter-Varsity Youth Festival 19
Agriculture
Horticulture Officers Workshop 20
News from UGC
Countrywide Classroom Programme 21
AIU NEWS
Computers in University Management 22
Book Review 24
Classified Advertisements 28

Opinions expressed in the articles are those of the contributors and do not necessarily reflect the policies of the Association.

Editor :
SUTINDER SINGH

Management Education in Changing Scenario

K.L. Johar*

With the advent of era of liberalization in July, 1991, Indian economy has witnessed a number of structural adjustments in its different sectors. These adjustments have come about as a result of political decisions to achieve fast economic growth through liberalization of economic and financial policy of the country. This change had become all the more necessary because of the need for falling in line with the new world economic order. At a time when majority of the nations under the guise of economic reforms surrendered gradually to the dictates of international institutions like International Monetary Fund (IMF), International Bank for Reconstruction & Development (IRBD) and World Trade Organisation (WTO), India could not remain an exception to the changed phenomenon. India has gone in for economic reforms in a way so as to become an active participant in the world market. Under these reforms, several new changes have been brought about in the economy such as privatisation of public sector, easy entry of multinational corporations, rehabilitation of sick units, adoption of golden handshake scheme, financial sector reforms and so on. All these and other such adjustments have brought a virtual change in the complexion of the economy.

Under these conditions, the education sector cannot afford to remain isolated as it affects productivity and growth through several channels. It is an incontrovertible fact that education plays an important role in the building up of society. The higher education system obtaining in India is the second largest in the world. Though the system suffers from several deficiencies, it is destined to withstand challenges of the 21st century, no matter whether the challenges are related to economic development, technology development, technology absorption or even philosophical development. The process of transformation from the static and traditional society to a vibrant and dynamic society requirés large doses of right type of education. The rate of modernisation of a nation is closely associated with both its material wealth and growth of human capital, the latter determined by quality of its educational inputs.

India today has as many as 229 universities and 8613 affiliated colleges where over six million of our younger generation are being prepared to take up the responsibilities of building our country and taking care of welfare of our people. Even though the number of schools, college and universities have increased manifold after independence, the literacy rate of India today stands at 48.2% as compared to 96.3% in Korea, 93% in Thailand, 73.3% in China and 99% in UK, USA and Japan (*World Bank Report*) We are continuing with the education system that we inherited from foreign rulers Even after 50 years of our independence, no major change has been brought about in the education system. Our educational system often receives criticism for its failure to come up to the expectations of the people. Quantitatively we might have grown, but qualitatively, we are certainly dwarfed. Due to a wide gap between the theory and practice, the students tend to develop apathy and cynicism towards the whole process of education. This is more true in respect of management education where a learner needs input of theory and practice in judicious proportion. The management education system is supposed to develop human skills to meet the changing requirements of the economy.

Till recently, India was more or less an insulated economy with foreign interaction governed by bilateral treaties. The economic activities have hitherto been dominated by the public sector and the government policies were largely directed by the social welfare objectives. The

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existing education system was thus designed and structured to meet the needs of the economy under the prevailing system. Now the needs of the economy have undergone a sea change, making it imperative to synchronise the needs of the corporate sector with management education system.

The educational system for a prestigious programme like management has to be very focused, vibrant and relevant. It has to keep pace with the fast changing economic conditions and value system. However, all these cannot be achieved without collaborative efforts of the corporate sector and institutes of higher learning. In India higher education has so far remained the sole responsibility of the government We could not evolve any system in which participation of private sector in higher education ventures could be attracted and symbiotic relationship between the Industry and university be developed It must be recognised that the output of the academic institutions requires intermediate processing before becoming suitable for consumption by industry. In this context training of manpower and commercialisation of university research is important Feedback system must be set up which provides information from industry to universities for maintaining curricula uptodate, advice on policy making education, technology, environment etc

Among other things the major problem areas where management education system needs revamping are the course curricula, teaching methodology, practical training, teaching aids and networking for placement of the students. The most glaring lacuna in our education system is that the syllabi has no connectivity with market demand for specific skills A huge gap in respect of the education system, syllabi, instructional material, literature, and creative thinking skills has developed between India and all developing nations and even with some developing nations like Korea, Singapore, Thailand etc The business schools, therefore, will have to rise to the occasion by updating their course curricula in a scientific manner. The courses should be devised in such a way so as to incorporate the specific needs of the corporate sector including the giant domestic undertakings, multi-national corporations and upcoming industrial undertakings in the financial and nonfinancial sectors For this, there is a need for regular interaction with the industry through visits by the faculty, giving business executives representation at different academic bodies like Board of Studies and Faculties and inviting them to deliver talks to the students. The training programmes for exposing the students to the real life business situations can be strengthened by involving the professionals under whose guidance the students undergo training, in the evaluation of their project reports prepared during the training To ensure that students take the training more seriously the faculty should evolve a system of generating regular feedback from the industry even by paying personal visits and surprise checks. This interaction should also serve as a means to getting research projects and consultancy opportunities from the industry.

It has been seen that Indian industry has not been making adequate use of talent available in the universities and institutes. The reasons are not too far to seek. The faculty has so far remained involved in traditional teaching, research and projects sponsored by University Grants Commission (UGC), Indian Council of Social Sciences Research (ICSSR) and the government departments. By not showing any interest in the problems of real business world, the faculty did not go in for industrial consultancy Not that the faculty remained lukewarm on its own count, the universities and institutes have also not been able to provide them the kind of support services and environment needed for the purpose There is no denying the fact that finance has remained a major governing factor which could not be circumvented by the institutions of higher learning themselves The changed scenario is conducive to making a dent into numerous opportunities of self financing While the universities and institutes can venture into starting high job profile programmes, the government also should not lag behind in providing matching grants

The new ventures will not see the light of the day unless the universities and institutes have well qualified, highly motivated and committed faculty Creativity is the buzz word today and efforts in generating the same will fructify only if we emphasize faculty development programmes in a large measure For faculty development, we cannot afford to rely merely on refresher courses and orientation programmes being conducted by the universities in their traditional settings and insulated environment. They will have to open up to the industry where their product sells All this boils down to strengthening of ties with the practitioners in the industry. The teachers should learn to deduce theories from practice This will enable them to leave a lasting impact on the minds of their taughts and thus mould them according to the needs of the job market.

Mode of instruction is nonetheless a problematic area which needs to be revisited. This is high time the management faculty shifts from traditional instructional modes to the innovative ones The lecture method, which takes a major chunk of the time available to a teacher to teach in the class, should be replaced by live interaction in the form of group discussions, seminars, brain storming sessions and so on. To enliven the class environment, instruction should be imparted by using modern teaching aids like overhead and slide projectors and audio video cassettes. With a view to make up for the limited time available for industrial visits, emphasis should be laid on simulating the business situations and arranging business games. Such endeavours would definitely help the management students to imbibe the qualities of leadership and learn to work in groups which are prerequisites for the success of a business executive.

Academic Research — Issues of Concern

R.M. Chidambaram*

Teachers at the higher education level are expected to engage in research in the concerned discipline for the following reasons ·

1 One among the three facets of a college/university teacher is 'research'. Apart from teaching and extension, a teacher has to guide researchers and undertake research projects of social relevance.

2 Text book oriented teaching is not a complete one. Practice orientation makes teaching more comprehensive and learner centred. Practicalities can be understood through survey Field survey is the inevitable component of research programmes in social science

3 Extension aims at creating a linkage between the society and industry concerned. For the welfare of people living below the poverty line, banks in India have number of schemes and programmes like Integrated Rural Development Programme (IRDP), Scheme for Urban Micro Enterprises (SUME), Prime Minister's Rozgar Yojana (PMRY) and the like Bankers, especially rural bankers, are unable to popularise these schemes/programmes due to inadequate staff strength. College and university teachers can percolate the features and benefits of these schemes and programmes in the minds of the target group as a sort of extension activity by availing the services of student community Teachers have to have a thorough idea of these schemes/programmes before launching an extension activity A teacher whose research work is 'rural banking' makes him committed to undertake extension activities suggested earlier

4 Problem solving ability is to be imbibed in the minds of postgraduate students Analytical approach is the base to develop this ability Real research broadens the analytical faculty. To cite an example, bank managements are of the opinion that rural banking is yet to make a desired impact as the personnel have an indifferent attitude towards rural service. But the bank personnel argue that the scope for banking is limited in rural segments. In the recent past, according to press, Non-Banking Financial Intermediaries (NBFIs) tapped substantial savings of the rural community Analytical approach identifies the real reason for a problem of this sort.

5 University-Industry interaction is emphasised for mutual benefit. Academic researchers desire to contribute much to the growth of the concerned industry as the growth of the discipline is interwoven Industries give due recognition to the findings of academic researchers as they are unbiased. For example, bankers restrict the quantum of jewel loans to be sanctioned by a branch as such loans encourage consumption rather than production But the findings of one of the research studies in Bank Management make the bankers reconsider their opinion :

- — The ceiling on the quantum of jewel loans indirectly encourages money lending business
- — It is wrong to conclude jewel loans as consumption loans as 72% of the sample population approached banks for jewel loans to meet the working capital deficiency of the chosen entrepreneurial ventures
- — From the bankers' point of view, jewel loans are secured and the rate of recovery in these loans is very much encouraging

Status of Research in Universities

Though Indian universities produce a number of Ph.Ds in different disciplines, quality is the casualty Views expressed in a recent workshop are consolidated and given below :

1 *Plagiarism*

As Ph.D is a pre-requisite to avail promotional opportunities in universities, many are forced to register themselves for Ph D Those who want to continue in the system with meagre research interest may resort to plagiarism To cite an incidence, the entire text of a thesis on 'Performance of Private Sector Banks' is lifted and incorporated in yet another thesis titled 'Share Price Movements of Private Sector Banks'. It is the responsibility of research supervisors to put an end to this undesirable practice. When it is proved that the thesis already approved is a plagiarized one, the university should not have any hesitation in withdrawing the degree.

2. *Faulty evaluation mechanism*

The Ph.D thesis evaluation mechanism should be tightened The practice of making the supervisor as an examiner/chairman need not be encouraged On the pretext of non-availability of foreign examiners in certain areas, some of the universities altogether drop evaluation by a foreign examiner thereby making evaluation a localised affair. It is not to doubt the integrity of Indian examiners, but involving foreign experts is important to get a stamp of approval for the research studies undertaken by Indian universities from the experts living in different parts of the world. Whatever be the nature of the subject, the researcher is expected to focus the background information which forms the base for the foreign examiner to learn the prevailing conditions which are peculiar to India. No doubt, customs and traditions of a particular society (maybe a caste) influence the saving habits. While analysing the saving habits of a particular society, the beliefs, habits, customs and traditions of that society have to be highlighted by the researcher wherefrom a foreigner can make himself/herself thorough with conditions peculiar to India to make evaluation a purposeful exercise.

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Universities have to exercise utmost caution while choosing examiners for the evaluation of Ph D theses. Some of the examiners unduly delay sending reports which eventually makes the researchers demotivated. Though the universities have their own formats for reporting the results of evaluation, an examiner is expected to give a comprehensive report on a thesis highlighting the merits, limitations, revisions required, if any, and questions to be posed in the viva voce examination Very recently an academic body had a chance to go through a similar format used by an examiner wherein he had to fill in only two columns viz., name of the researcher and the title of the research study. It is obvious that one can perform this formality even without going through the research report.

Reasonable remuneration is to be given to examiners Timely disbursement of remuneration is yet another point to be taken care of by administrators. Very often foreign examiners decline evaluation assignments on the ground that universities do not settle their claims for years together.

3 Lack of continuity of interest

Research is not a one time affair It is a continuous process Teachers possessing Ph D degree have to identify local problems for an in-depth analysis, suggestion of remedial measures, and dissemination of information to concerned study units as a social responsibility. For projects of this nature, teachers can approach universities (minor research projects), the University Grants Commission (major research projects) and non-governmental organizations for required financial assistance. Endeavours of this kind make the teachers update their academic discipline But these endeavours should never be at the cost of teaching A teacher has to strike a balance between teaching and research so as to make the job rewarding one and give scope for extension activities for the benefits of the society around

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GRDIM — WHERE EXCELLENCE IS A WAY OF LIFE

University : Management and Structural Changes

N.M. Munshi*

Introduction

For every unsuccessful story, management is blamed, and in contrast, management rattles for lack of resources and unfavourable situations. Indian universities are no exception Indian universities for the last few years are following in the foot steps of sick units and university education has lost its credibility. Barring a few, Indian universities lament their unsuccessful story of lack of resources and unfavourable situations. In the changing social and economic scenario, any system — set up or organisation, needs to be constantly reoriented and made flexible and diversified to meet the emerging challenges. Indian universities have not failed to visualise the social and economical changes and their impact on higher education, but have failed to introduce matching system — set up and organisational structure.

Shri S.R. Bommai, Union Minister for Human Resource Development, while elaborating the functions of the universities said, "India's political and social life is passing through a phase in which the long-cherished values of socialism, secularism, democracy and professional ethics are coming under increasing strain. In such a situation, universities and colleges must take efforts to promote national cohesion and work ethic. Academic autonomy must be matched by social responsibilities."[1]

It is admitted in the NPE-1986 that education develops manpower for different levels of economy. Education is proclaimed as a unique investment It also confirms that the role and responsibilities of the State with regard to education would remain unchanged and the union government would accept larger responsibilities :

(1) To reinforce the national and integrative character of education.

(2) To maintain quality and standards.

(3) To study and monitor the education requirements of the country as a whole in regard to manpower development.

(4) To cater to the needs of research and advanced study.

(5) To look after the international aspects of education, culture and human resource development.

(6) To promote excellence at all levels of educational pyramid throughout the country.

The needs of achievements and expectancy of the government in education-sector are very high, but the efforts of the government are moderate, consequently results of the system are significantly very poor. During last few years, higher education has expanded and there is rising demand for higher education in a competitive world However the general consensus is that allocation of funds for higher education in the budgets seems to be very low, unmatched even with increasing cost of higher education in the budgets seems to be very low, unmatched even with increasing cost of higher education To meet such crucial problems of finance and ensure effective and efficient administration, privatisation of higher education is suggested and to this effect the government has also introduced The Private Universities Bill-1995.

No doubt, inadequate financing is stifling the higher education, but is the paucity of funds only the determining factor for declining quality of education and administration? Whether inadequate finance is the only crucial issue of the universities? Who takes serious note of the poor quality of the mass of the students and services rendered by the universities? What are the measures for auditing the performance, responsibility and accountability of teachers and management? Whether universities are out of the purview of total quality management? What should be done to solve the increasing problems and issues of higher education?

The real issue is management of university education — a problem not of ideology but administration. In the light of ever expanding horizons of higher education and their issues and needs of the society, this paper aims,

(i) to describe how the responsibilities of the government and society in the higher education sector and its functional areas of finance and personnel management could be upgraded through structural changes; and

(ii) to describe how the universities' organisation could be integrated to ensure steady and streamlined administration through a new model of organisational structure.

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In the context of rapid social and technological changes, higher education has to play a very significant role. In spite of our spirited efforts, we are unable to achieve the desired results, and TQM in the higher education. TQM is managerial function but perceived quality is possible only when people work with genuine involvement in the related activities.

Human resources development and social reforms in the everchanging social and economic scenario are warranted by the principles of continuous improvement Keith Davis has pointed out, "The dynamic force of changes affects the whole social system. All elements of the social system are involved, its people, formal and informal organisations, operating environment, communication pattern, decision making and pattern of co-operation "

University as a social system, should be able to absorb the forces of dynamic changes to play its assigned role in the national development, in strengthening the process of social transformation The existing set up for higher education and university organisational structure have mired in the desultory environment of mirage, consequently have failed to absorb the forces of dynamic changes, and higher education has gradually lost its significance in the society

Organisational development is also one of the major issues of the universities Bennis Warren has defined organisational development as "a response to change, a complex educational strategy intended to change the beliefs, attitude, value and structure of organisations so that they can better adapt themselves to new technology, markets and challenges and the dizzying rate of change itself It aims at developing the organisation into an organic system in contrast to a mechanical system ."

Government and universities during last few years have suggested and introduced certain changes to solve the grassroot problems of universities; striking examples are open universities, self financing universities Bill, self financing colleges, employment oriented self financing courses and external degree courses. However some propositions are coupled with pretensions. It is also feared that in some universities, self financing employment oriented and diploma courses have opened doors of cupidity.

The need of the day is to redefine set-up for higher education matching with the forthcoming development and changes in the society and to develop new organisational structure of universities to instil, steady and streamlined administration

Structural Changes

If existing set-up and organisational structures of the universities are not improved from grassroot level, exercises to improve administrative and managerial efficiency would prove futile. To resolve the issues of the crippling higher education, alternative set-ups as described below are suggested.

(i) Private Self-financing Universities

(ii) State-run Universities — with self-financing colleges

  (a) New set-up for Higher Education

  (b) New Organisational structure for University

(iii) Open Universities.

(i) Private Self-financing Universities

To meet the rising demand for higher education in a competitive world of technology and to resolve the various administrative and managerial problems including finance, the government has sought an amicable solution by introducing The Private Universities Bill-1995.

To strengthen the proposition of private self-financing universities, the Ministry of Finance has presented in May 1997, a "Discussion Paper on Government Subsidies." This paper reveals that non merit goods and services will have to finance themselves The paper also reveals that education beyond the elementary level is not included in the priority list of merit. Thus secondary and higher education in particular, will have to finance themselves.

It is anticipated that private self-financing universities would play a supportive role to the state government in catering to the goals of higher education. These universities are expected to be managed professionally and would provide steady and streamlined administration with profuse resources. The main features of the private universities are as follows :

(1) The sponsoring body such as registered society, trust or registered company could promote self-financing universities with a permanent endowment funds of Rs. 10 crores.

(2) The authorities of such university shall consist of

  (a) Board of Governors

  (b) Board of Management

  (c) Academic Council

(a) Board of Governors

This Board shall be the supreme governing body of the university with a power to review decisions of all the other authorities of the university. This board shall approve the annual budgets and reports of the university, lay down broad policies and shall have the powers to voluntary winding up of the university The board shall consists of the following members ·

(a) The Chancellor who shall be appointed by the sponsoring body with previous approval of the Central Government;

(b) The Vice-Chancellor who shall be appointed by the Chancellor from the panel of five names; recommended by the board of governors.

(c) Three persons nominated by sponsoring body,

(d) One representative each from the central and state government.

(e) An academician nominated by the University Grants Commission (UGC)

(3) Such university will have no power to affiliate any college or other institution and shall have only one campus

(4) The university shall obtain accreditation from the body nominated by UGC within three years of its establishment and shall renew at an interval of five years.

(5) The university shall not be entitled to receive grant-in-aid or other financial assistance from the central or state government or any commission like UGC or any other authority

Higher education is now in a dilemma. Proposition for amalgamation of two equally different and contrasting sectors i e Business-And-Education has embiltered the minds of some academicians Some experts fearfully describe the shortcomings of privatised higher education system, while others are worried about the existing derailed higher education system.

Prof. Debo Prasad Barooah, former V.C , Gauhati University has pointed out · "There is lack of political will to make a positive response in the form of higher financial allocation for the education sector... A university is much more than a business or trade related institution. A plethora of commissions and committees on education recommended and the government accepted its responsibility in the field of education. Looked at from this stand point, education, including higher education can not reasonably be privatised any more than the state itself can be privatised."[2]

University and college teachers all over the country have registered dissent A resolution was passed at the 27th All India Academic Conference of the Federation of University and College Teachers Organisation, to press their demand including withdrawal of the Education Privatisation Bill.

Prof Muchkund Dubey in his convocation address at University of North Bengal said, "Education has suffered badly under the World Bank/IMF imposed structural adjustment programmes. As a part of the liberalisation policy, it has been suggested that education should be progressively privatised. The irony is that the package in which liberalisation is recommended by the IMF/World Bank to the developing countries, is nowhere practised in the western countries. Market forces will not go to the wide and very crucial areas of education where there is no return on investment The ultimate responsibility of ensuring the funding of and running the educational system in these area must rest with the government The private sector cannot provide public good like education Nor can it become an instrument of organic and fundamental social transformation which is a principal purpose of education The motive which drives the private sector is profit and not wider social purposes. [3]

As a matter of fact, the Constitutional Amendment Act 1976, placed education in the concurrent list which signifies a partnership Therefore it should be appreciated if philanthropists, with the help of Multi National Companies (MNCs) and Non-Resident Indians (NRIs) come forward to establish self-financing universities as non-profit making institutions in the emerging areas of science and technology. They would serve the nation in many ways, e.g.

(i) Reduce, up to a certain extent, the financial burden of the government;

(ii) Create competitive market in the education sector;

(iii) Provide facilities and opportunities on home ground for the well to do populace,

(iv) Provide steady and streamlined administration

Privatisation does not mean monopoly, a source of exploitation and education sector is not a profit sector. Therefore fear of exploitation is out of question. Simultaneously we should not forget that business and industrial houses in private sector have fairly projected their social responsibilities without considering the return on social investment. If these houses expand their social investment to cover higher education, they are meeting obligations of social responsibilities. Advanced business and industrial houses even in our country, now emphasize on human resources development and social responsibilities and consider them as prime magnetic instruments of the sector, profit maximisation has become a secondary goal for these houses. Professionals in the field also advocate human resources development and at this jucture they are one step ahead of academicians. Education sector has never been a profit sector for professionals Therefore fear of exploitation through private sector in higher education is imaginary. Actually, we fear malpractices but which sector is free from this? Education?

State-Run Universities

The government's need of achievement as described in NPE 1986 is very high. Higher level of needs of achievement determines the level of performance and efforts. Government will have to put higher level of performance and efforts to satisfy higher level of needs of achievement. Earn and learn proposition in our country, due to lack of resources, cannot gain much popularity and we are still very far from such opportunities and possibilities. Therefore, government will have to make adequate allocation of funds for higher education at least for 10-15 years.

During the last few years, universities have responded favourably to challenges posed by the developing economy, e.g universities have started employment oriented courses, external degree courses and colleges have enrolled number of students over and above their absorbing capacity, managerial capabilities and abilities, but these efforts are like a drop in the ocean. With the expanding horizons of higher education and to meet the countless problems and issues of higher education, universities and government shall have to continue to play their Parent-Role and to work out advanced plans and policies for higher education suitable for developing economy and ever changing social environment without smothering the realities.

Higher education now needs special attention. The existing set-up must be redefined in the light of the prevailing situations. New set-up for higher education and new organisational structure for the university would perhaps help stimulate higher level of performance and efforts leading towards streamlined administration and managerial efficiency in the university.

(A) New Set-up for Higher Education

(1) The State Universities (Rules and Regulations) Act should be enacted. All the universities of the state shall function under the direct control and supervision of the Directorate of Education and, the Director of Education (equivalent to MD) would be the principal full time Executive Director of the entire system. He shall be the supreme governing authority with powers to review decisions of all the universities. He shall be appointed by the competent authorities like the Union Public Service Commission (UPSC).

(2) The new set-up for higher education shall be fabricated in the major functional areas, and, to manage the entire system separate boards shall be established like

(i) University Finance Board

(ii) University Education Planning Board

(iii) Human-Resources Development Board

(i) University Finance Board

Finance Board, on lines of UGC, should be established under the headship of full time Director (Finance). He would control the financial functions of the universities The Director (Finance) shall be appointed by the competent authority.

The Board shall formulate the financial policies, monitor the finance functions, approve the annual budgets and financial reports of the universities The Board shall lay down uniform cost and accounting policies and observe internal check through budgetary control system — with a view to determine and establish the functional responsibilities of the Chief Executive Officer, Registrar and Officers in Charge of the finance and other major departments of the university

The members of the board shall be nominated as per the provision made in the Act and the Director of Education shall be the Ex-officio Chairman of the board.

(ii) University Education Planning Board

University Education Planning Board, under the headship of full time Chief Executive Officer, should be established with an objective to achieve balanced growth of higher education in the state. We have specific and indigenous problems of higher education for rural and urban areas. Therefore, the board shall formulate various short term and long term plans and policies for higher education in such a way that higher education plays its assigned role in the national development, in initiating and strengthening the process of social transformation.

The members of the board shall be nominated from the specialised fields and the Director of Education shall be the Chairman of the Board. The Chief Executive Officer shall be appointed by competent authority.

(iii) Human Resources Development Board

In the universities and colleges, in the absence of uniform personnel policies, personnel management is done in a very crude manner. Selection, the only one function of staffing is performed very mechanically On the basis of five year plans submitted by respective institutions, UGC determines the total number of personnel required by universities and colleges, but the personnel are appointed arbitrarily

We are on the threshold of 21st century which is a good time to take stock of our experiences and to set goals for future Personnel of the universities and colleges should be on the top of the priority list

Human Resources Development Board should be established to bear this responsibility This board shall work as human resource department, formulate policies and work out short term and long term plans leading to the development of human resources The Chief Administrative Officer, Registrar, teachers of all categories and principals of the colleges shall be recruited through this board However, office staff of the universities and colleges shall be recruited by the respective institutions under the guidance and supervision of the board

The members of the board shall be nominated as per the provision described in the Act and Joint Director of Education shall be the ex-officio chairman of the board Personnel manager of the board shall be appointed by competent authority

(B) University Organisation : New Model

University Organisational structure should also be restructured in accordance with the refinements discussed above to minimise the square pegs in round holes Prof. K.K. Bajaj argues "The present set-up is too self serving, too theoretical and too fragemented Though each university tries to reclaim public trust, yet improvement in standards, objectivity, accountability and creation of opportunities correlated to inputs in the best interests of its students are yet to be reinforced... In most of the universities, the governance seems to be on a holiday with the surrender of policy planning for any worthwhile initiatives . There is crisis of identity Confusion prevails about its role and responsibility There is no scientific formulation of its advantages of decentralisation .. But generally very soon his (VC) role gets mired into a culture of mutual blame and despondence where he fails to tackle major issues and loses community support and is unable to offer any academic leadership with any fresh insight and idealism.[4]

Why the role of vice-chancellor is criticised so bitterly? Is he the only one responsible for despondency in the campus? Are our expectations from the vice-chancellor very high? His success depends on the maturity of the members of the team he leads, quality of environment created by our teachers, staff, students and society and the quality of the services rendered by the government machineries When a new vice-chancellor enters the campus, he observes the situation and realises the importance of power grabing informal groups and the history repeats by itself The vice-chancellor's world of management ends with the conduct of examinations looking after the operative management, delivering a harangue and to round up minions

The government puts restrictions, instead of controls on the universities which is more harmful for academic autonomy because restrictions provoke the violation of rules while control leads towards better performance. This state of affairs has played a major role in quality deterioration In accordance with the new set up for higher education discussed earlier, new organisational structure for the universities should be set up with a view to direct and control all the channels of higher education

(1) In accordance with the State Universities Act, universities' manuals, statutes and ordinances should be formulated describing the organisational structure and the rules-regulations for operative management of the universities These law books should aim to interlace the uniform managerial and administrative policies applicable in all the universities of the state There should be proper balance between centralization and decentralisation of authority. Decentralised operations should be encouraged with coordinated control by top management However important decisions should be centralised at the top management level [Figure 1]

(2) Uniform organisational structure [Figure 1] for all the universities of the state should be adopted The Chief Administrative Officer (GM) in the university answerable to the Director of Education should be appointed through competent authority He shall be the principal executive and academic officer of the university with a power to administer and manage the university to ensure that the provisions of the law books are faithfully followed and plans and policies of higher education are followed and implemented in totality. He shall be the ex-officio chairman of the academic council, Board of Post-

graduate Teaching & Research (BPGTR), finance committee and planning board authorities of the university.

(3) The authorities of the university should be constituted as described in the law books comprising the following

- (a) Academic Council
- (b) Board of Postgraduate Teaching and Research
- (c) Faculties
- (d) Board of Studies
- (e) The Finance Committee
- (f) The Planning Board

(D) Self Financing Colleges

Higher education during 50 years has grown and expanded, smouldering with accumulated problems of quality of education, finance and numberless other managerial problems The government and universities have spared no pain to resolve the problems and issues of higher education.

The Chief Minister of Andhra Pradesh, Mr. Naidu, while evaluating the present needs of the state and issues of the higher education said, "The main intention of the government is to ensure that viable colleges are set up through a process which is completely transparent. Since it has already been found that the financial burden on the government would be enormous if the government itself were to run the colleges and in view of the difficulties in operating trusts with collectors as chairmen, the option of setting up colleges in the private sector is considered. At least one college would be permitted in every revenue division."

Such self financing colleges/institutions may have their affiliation with other state or foreign universities In a developing country like ours, self financing colleges would be more viable units in terms of financial investments and administration than self financing private universities. However such colleges would help the society and government very marginally and would not gain pouplarity due to the financial constraint of the populace Therefore there is no other alternative for the government but to run state universities and open universities to discharge its responsibilities (NPE 1986) in the higher education sector

(E) Open Universities

Self financing colleges would help in solving the financial problems of higher education in technology and professional courses upto certain extent but the situation for Arts, Science and Commerce Colleges is much more serious. Student enrolment in these faculties is increasing by leaps and bounds Although the lifestyle of the people during last few years has improved, but it has also increased the cost of living Therefore it is simply not possible to go in for higher education on user's pay basis. Therefore self financing colleges would be an additional facility but not the solution.

In the terms of realities, our existing system of higher education, only keeps the younger generation engaged for nothing The campuses have turned into the go-to-gathering fields — a fertile lands for the shearers

Prof. Muchkund Dubey has observed, "The criminalisation of politics is now extended to universities and some of the universities have become the dens of criminals Education in these universities neither endows the students with discriminating ability nor unlocks for them the mysteries of nature and like, nor enables them to cope with the complexity of modern world nor provides to vast majority of them job opportunities. It is no longer true that students in India go in for higher education as status symbol The excess of supply over demand among university graduates and postgraduates consists not due to the pursuit of status symbol but because the economy is not dynamic enough and society is not organised enough to mop up the excess .[5]

Prof J.N Kapur, while talking about the students' & teachers' attitudes to higher education has noted, "It appears that there are some teachers who do not take any class at all, but there are quite a significant number of teachers who may not take 30 to 40 per cent classes and yet hardly there is any protest from the students The principals and educational management have lost their effectiveness in asking the teachers to take their classes and the students do not insist that classes be taken. .[6]

The observations are very painful Higher education is crawling because the number of students enrolled in the colleges are more than their absorbing capacities. For increased workload, neither staff is allocated nor the physical resources are provided.

The idea of promoting the open-universities is an attractive alternative for the government. Open-universities would .

- (i) share the workload of colleges and university departments,
- (ii) dilute the severe financial crisis;

(iii) help some of the colleges to solve admissions and enrolments problems;

(iv) disperse the un-social gathering of students in the campuses, and

(v) help Government to use the additional funds for primary and secondary school level education by shifting responsibilities of higher education to open universities from existing colleges and departments.

This system emphasizes self-preparation. Some universities also offer external degree courses, some reputed institutions offer professional courses through correspondence IGNOU and other open universities are gaining popularity. All these advocate self-preparation. The concept of self preparation could be forged with the open universities network Self-financing private colleges and institutions should be promoted Study centres and partner institutions with adequate facilities should be established and study materials, equipments and services required for the self-preparation should be made available at the minimum cost.

Vocational education and technical training should be given top priority in the education curriculum. Vocational education and technical training programmes at minimum cost or free of costs would help solve the problems of enrolment at high school level.

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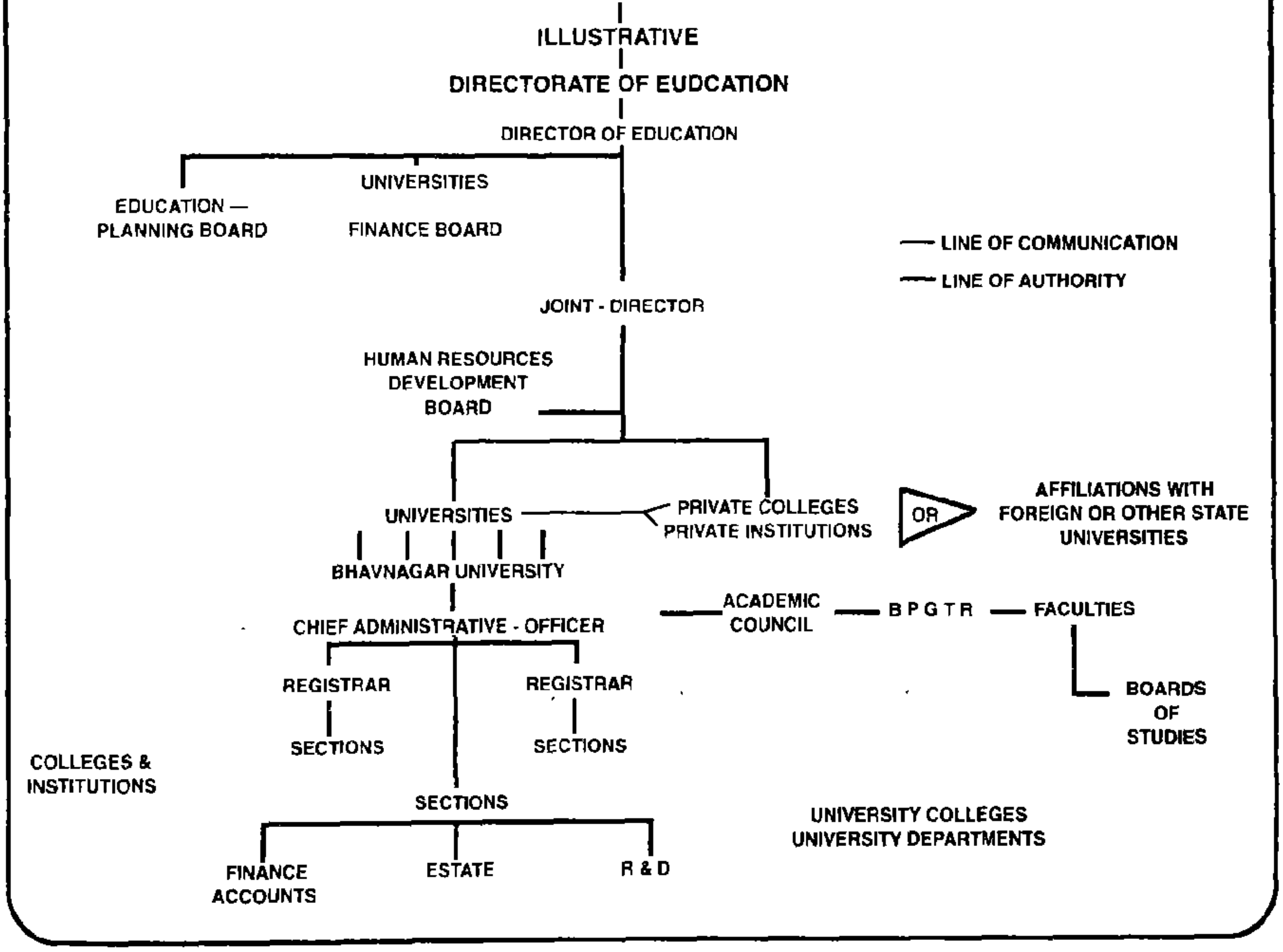

FIGURE 1 : UNIVERSITY EDUCATION AT STATE-LEVEL

Computer Application in Educational Management

Maheshkumar Rajyaguru*

Educational Management and Computers

Educational computing is a rapidly growing field Computers can play a vital role in educational management Educational computing is going to be part of educational management in the twenty first century Computer helps in planning, organizing, leading and controlling to achieve educational goals and also promotes process of meeting educational needs

Chadha (1990) described aims of scientific management. Scientific management aims at (1) making provisions for use of knowledge and skill of experts at every stage, (2) standardizing procedures and working conditions, (3) reducing the possibility of slackness, (4) providing guidance, leadership and direction, (5) organizing research and feedback, (6) providing counselling service to overcome organizational and domestic problems, (7) all round physical, mental and technical development of the workforce, and (8) introducing new and scientific techniques to improve performance dimensions

Some keynotes about computer are (1) computers can process millions of instructions per second, (2) a computer cannot think on it's own (3) human beings can learn from experience, computer does not learn from experience, (4) computer uses input devices like keyboard, mouse, joystick, bar code recorder, optical mark reader and Magnetic ink character recognition, and (5) future chips Silicon chips may be replaced by Gallium arsenide chips, Bio chips are other future chips that may replace silicon chips

Taxonomy for Educational Computing

Knezek and others (1988) have described a taxonomy for educational computing Educational computing applications are classified into three groups (1) Knowledge generation, (2) Knowledge dissemination, and (3) Information management Knezek has described 48 uses of computer in education

Knowledge generation is classified into (1) Data acquisition, (b) Data analysis, and (c) Modeling

Knowledge dissemination is classified into (1) The computer as a topic, (b) The computer as a tool, (c) The computer as a tutee, and (d) The computer as a tutor

Information management is classified into (a) students' records (b) Financial records (c) Personnel records, (d) Support service records, and (e) Project records

It is difficult to describe the linkage of all aspects of educational management with computer. Hence only some selected window based softwares are introduced here

Some Window Based Packages

MS-Window is an operating environment It is a user friendly operating system PC-Computers must have at least 80286 or higher processor (pentium preferable) At least 9MB memory on hard disk required

Excel is a powerful package with worksheet program, graph program, and data base management program Its spreadsheet package runs under windows A spreadsheet allows a variety of calculations, insertion of formulas and is convenient for preparing budgets annual reports, income statement, students scores

Powerpoint enables creation of presentation slides that combine text, charts graphs, drawing and clip art graphics Powerpoint slides can be displayed on a computer screen, a print can be taken on paper or transparencies, or can be converted into 35 mm slide using a film Learning instructional material can be produced with the help of powerpoint

Word is a word processor It is a package to create effective documents, research papers 'Word' gives us facilities of different types and sizes of fonts, page set up, margin set up, spell check, grammar check, *Italic*, **bold**, underline,various kinds of alignment like left, right, center and justify Many other facilities are available in word

Planning for Instructional Uses of Microcomputers

Pogrow (1983) worked out a formula to find out the number of computers needed to support a given activity .

$$\textit{Number of computers} = \frac{\textit{Numbers of students}}{\textit{Mode of activity}}$$

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For examples, if there are 100 students targeted for computer assisted instruction activities for 20 minutes 5 days a week, with a 1:1 ratios (Pupil computer ratio) then the number of systems needed (assuming 300 minutes available in the school day) is 100/(300/20)=6.7, or 7 computers. An example from a project is given here to explain how e-mail is effective in managing teaching-learning process.

An Example of a Project Using E-mail

Wild Rosemary and Winniford (1993) reported a project using E-mail among students — a project that allowed university students from dispersed remote locations to collaborate on a decision-making task using e-mail. Two groups, one from Hawaii and other from Southern Methodist University worked jointly with their remote group members to evaluate and solve a complex linear-programming decision-making task. Students were provided an opportunity at the beginning of semester to practise sending e-mail message to their respective professors and to one another to become familiar and comfortable with the medium. Salient features of the results of project were: (1) students felt the project was challenging and valuable, (2) students commented on how valuable their e-mail discussions with their remote team members were, allowing them to think about the problem in depth to obtain the best solution, (3) all of the students commented on how this problem made them realize how important effective communication is, (4) students said that clarity and conciseness were the keys to successful communication via e-mail, and (5) several students claimed that they felt a sense of excitement and anticipation when they logged onto the computer to see if they had a message from their remote group members.

Computers save time, organize all the activities included in management. Get ready to receive required information from INTERNET Computers are going to globalise education.

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NOTE [1] Separate applications must be sent if a candidate is applying for a faculty position in more than one Department Centre etc [2] The Institute reserves the right to fill or not to fill any or all the posts advertised [3] Mere fulfilment of the qualifications and experience requirement laid down does not entitle a candidate to be called for interview [4] No correspondence will be entertained from candidates regarding postal delays, conduct and result of interview and reasons for not being called for interview [5] Suitable residential accommodation is provided on the campus depending upon the vacancies available

Date 22 1 1998 **REGISTRAR**

The Meaning of Globalisation

Dr. R.A. Mashelkar, Director General, Council of Scientific & Industrial Research & Secretary, Departmentof Scientific & Industrial Research, New Delhi, delivered the convocation address at the Forty-Seventh Annual Convocation of the SNDT Women's University, Mumabi. He said, "The meaning of globalisation, for a country in stark terms is global competition and in a competitive world the one who comes second is not good enough. One has to be at the top to count. The tool that will take a country to a pre-eminent position is Knowledge. It gives a country the competitive edge. The wealth of a nation today is not so much its material resources as its intellectual capital. The measure of wealth is no more land and buildings and money, but knowledge-based systems which add value." Excerpts

The SNDT is a lustrous monument to that outstanding visionary and social reformer, Maharshi Dhondo Keshav Karve, who could dream, above and beyond the hopelessness of circumstances, to seek a future of dignity for the womenfolk whom the society had not been treating kindly, and work with rare dedication to realise that dream.

In its eighty-first year since inception, SNDT is a saga of achievements and has a very progressive, proactive culture. The sheer originality of the initiatives that the University has been taking evokes great respect and admiration Teaching through the medium of the mother tongue; reaching out to women to enrol in distance-learning mode much before the thought occurred to others; admitting women to graduate courses without any formal schooling; — each of these measures has been revolutionary and eminently sensible. The entire approach is so responsive to the needs of the time and so refreshingly rooted in its own milieu !

I am particularly pleased to see the emphasis the University has placed on building up linkages with leading institutions in India and abroad to enrich its faculty & facilities and strengthen its programmes and activities. Indeed as technology shapes an integrated world, institutions which access the world of resources beyond their enclosures will thrive and serve the mankind better in their chosen fields, the ones which, for want of imagination or self-inflicted confusion, choose to isolate themselves will wither.

Networking : The New Paradigm

In fact networking is the emerging paradigm in higher education. In view of the growing complexity and sophistication of social organisation and the explosion of knowledge, the demand for higher education and newer skills to create knowledge and convert it to wealth as also to design and run advanced systems is becoming universal Such demand seeks accommodation of a variety of diversities the diversity of learners (people of different age groups and different backgrounds); the diversity of goals (people having very different motivations and objectives) and the diversity of contexts (people having different time-frames and different study plans). The concept of learning itself is changing. It is no more an exclusive, one time pursuit. It is life-long learning where learning, working and living are all combined. Obviously the traditional system of hallowed portals and class-bound dons will not be able to cope with the changed aspirations. The emerging system has to be learner-centric, taking the learning opportunity to where the learner is rather than asking the learner to come to the university. It has to come up with new curricula, new flexibilities for combining course modules of one's choice, and new delivery and accreditation systems. Clearly the entire scheme suits the women particularly and takes away all the disabilities that presently stand in their way to receive education.

A Technology-led World

It is a technology-led world that we live in and the pace of change is frenetic. Breath-taking advances in Information Technology are radically transforming the way business is conducted, money transactions are made, global conferences are held, patients are diagnosed and complicated operations are performed across continental distances. Virtual reality has taken over actual reality for problem solving and system design with unprecedented virtuosity. Traditional notions of work and work place have collapsed. The office of the future which is already here is no more mere paperless, but also without place or boundaries; in fact it is fast becoming more of an arrangement than a place and, thanks to worldwide networking, the organisation never sleeps. Intelligent buildings are no more in the realm of fiction, intelligent materials that respond to environment and can repair and heal themselves have appeared on the scene.The gene has yielded its secrets and bio-technology unleashes unlimited possibilities, some of them quite chimeric The galaxies are daily shedding some of their so-far unfathomable mystery and science is closer to resolving the duality of matter and energy at the most fundamental level as also to finding the essential unity of all forces. In short, science and technology are in super-charged mode, each feeding the other in perfect symbiosis, raising a vision of infinite possibilities.

A most positive feature of these developments is that a woman's life is becoming easier, better and freer We have seen how the access of women to higher education has become easy. The same flexibilities are available for working too. The emerging office offers you the freedom to work from home and at hours that suit you Some major travel agencies have closed down their offices and people work from home. A woman can now actually see her husband off to business and kiss good bye to kids going to school, without having to join the rush to go to office! Home and office have ceased to be contrary pulls The advances in bioscience and biotechnology have placed in the hands of women opportunities that were unheard of earlier A passing reference to the reality of surrogate motherhood through in vitro fertilisation would suffice as it takes the cause of woman's independence a mighty leap further and expands her choices in life Of course it also makes possible several things that were hitherot impossible It is now possible for a child to be born when both its genetic parents are not alive The people who revel in tradition are not going to have an easy time !

Global Integration and India

It is evident that such explosion of knowledge will not be a respecter of boundaries of any kind, much less the national boundaries. In the age of inter-net, communication satellites & supersonic travel, no country can afford to erect walls around it. The push from exploding knowledge becomes a shove for globalisation when it comes to trade and commerce. It makes sense to join the global game, instead of getting isolated, and explore one's options and strategies in the global framework. A country like India has no reason to be unduly worried over globalisation because it has considerable intrinsic strengths in its large natural resources, large national market, strong industrial base, a powerful R&D infrastructure and above all a highly knowledgeable and skilled S&T manpower that can stand its own in global competition and rise to any challenge. Our response to the progressive integration of the World, should be one of cautious optimism and not of fear

The meaning of globalisation, for a country in stark terms is global competition and in a competitive world the one who comes second is not good enough. One has to be at the top to count. The tool that will take a country to a preeminent position is Knowledge. It gives a country the competitive edge The wealth of a nation today is not so much its material resources as its intellectual capital. The measure of wealth is no more land and buildings and money, but knowledge-based systems which add value. Many a country realises the value of the intellectual prowess of its people and equates intellectual capital with real money. Japan, for example, is considering a legislation to accept intellectual property as a security for loan The situation of India is a little peculiar Several eminent people in recent times have observed that India is a developing country but it is one of the most developed countries as far as its intellectual infrastructure is concerned. Indeed India has the potential to be the intellectual capital of the world. Yet it cannot be denied that we are a poor country with only islands of affluence in the midst of swirling poverty.

The explanation for this apparent contradiction between intellectual richness and material poverty lies substantially in the fact that we do not knowhow to convert knowledge into wealth. We have not learnt to build the bridge over the chasm between discovery and market place This is an urgent need of the hour.

I have a Dream to Share

I have this heady dream of seeing India emerge not only as the intellectual capital of the world but as an economic power to reckon with. Technology is going to be the key for it but the technology we want will not be available for love or money. No supplier would like to create a global competitor — that is the image India has The technology game has become highly complex One may get something if it suits the global game plan of the technology supplier. The days of straightforward technology licensing are over. There are only hedged offers : technology-cum-product swap, technology-cum-equity participation, territory restrictions for marketing. Even equitable joint ventures are not possible if one lacks technological muscles. There is only one way to effectively counter these adverse trends and that is through continuous innovation and technology development; to be strong enough technologically to win respect of others in the technology game. For this to materialise India needs an explosion of creativity.

Centuries of subjugation have seriously undermined our capacity for creativity and innovation which has got to be revived and strengthened. This requires an all pervasive attitudinal change towards life and work — a shift from a culture of drift to a culture of dynamism, from a culture of ideal prattle to a culture of thought and work, from diffidence to confidence, from despair to hope. Revival of creativity and the innovative spirit needs to be made into a national movement today, in the same spirit and on the same scale as marked the freedom struggle. I often wonder at the reservoir of creativity that our common folk demonstrate in tackling their daily tasks. The way the delivery of lunch boxes in offices is organised in Mumbai offers an object lesson in management; the way a person goes up the tall tree and picks the coconuts is an exemplar of the ingenuity and skill of ordinary people. We have to be ingenious ourselves as a nation to draw upon this reservoir of talent and ideas. Dr Mahathir Mohamad, the dynamic Prime Minister of Malaysia, dipped precisely into this reservoir to seeks solutions. He has launched an innovative movement, where he is trying to make the entire nation participate in this movement. For instance, he refers to a housewife as a domestic engineer, such is his confidence in her innovative and creative ability that she demonstrates in her daily household management. He invited the entire nation to contribute by way of creative ideas to solve the problem of urban transportation. Such exercises set people thinking for solutions to the problems which plague them. Who knows the problems better than them? Even undirected they try to come up with functional solutions Trying to tap their knowledge and helping their creativity is necessary for social and economic transformation

The Final Word

I would like to conclude with a reassertion of my faith in India's ability to be the intellectual capital of the world and also its potential to being among the top economic powers of the world by 2020. For too long we have been listening about the inherent potential of India to be a world leader. The next two decades should see the realisation of this potential. Institutes such as SNDT University will play a key role and making this dream of "India Unlimited" come true.

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Chemistry Inorganic including solid state and biorganics, Organic including newer reagents and methodologies, Physical including Theoretical Chemistry and polymers
Mathematics Algebra, Numerical Analysis, Functional Analysis, Operations Research / Stochastic Processes, Combinatorics / Graph Theory, Mathematical Analysis
Humanities and Social Sciences English (Literature and Linguistics) Sociology, Economics, Philosophy, Psychology
Associate Professor / Professor:
Chemical Engineering all areas

Applications are invited for Professors in any specialization (except for HSS, which will be as per the list given above)
Minimum Qualifications Ph D in the appropriate discipline with a very good academic record throughout Candidates who have submitted their thesis, or are likely to submit before June 1 1998 may also apply
Professor of an Institute of national importance who is on the verge of retirement or who has recently retired may also apply for a contract appointment

Experience:
Professor: A minimum of 10 years of experience of which at least five years should be at the level of Assistant Professor / Associate Professor
Associate Professor: A minimum of 8 years of teaching / research / industrial experience of which at least 3 years should be at the level of Assistant Professor
Assistant Professor: At least 3 years of teaching / research / industrial experience
Lecturer: This is not a regular cadre of the Institute However appointment as a lecturer can be made on a contract basis, ordinarily for a period of 3 years, but not exceeding 5 years

Pay Scales (likely to be revised):
Professor: Rs 5100-150-5700-200-7300, **Associate Professor:** Rs 4500-150-5700-200-6300, **Assistant Professor:** Rs 3700-125-4950-150-5700, **Lecturer:** Rs 3000-100-3500-125-5000

Minimum requirements of qualification and/or experience may be relaxed in respect of exceptionally outstanding candidates
Prescribed application form and full details, may be obtained either in person or by sending a self-addressed envelope of 25cm X 10cm bearing postage of Rs 3/- (or minimum Speed Post charge) to the undesigned Candidates from abroad may apply on plain paper They will be considered in absentia if they are not in India on the date of the Selection Committee meeting for the department concerned
Last Date for receipt of completed application forms. 20 February 1998.
Ph 0361-521915, 545146, 545068, 548777
Fax 0361-521916, email doa@iitg ernet in

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CAMPUS NEWS

Environmental Law for Environmental Management

Mr. Justice B P. Jeevan Reddy, Chairman, Law Commission of India blamed the "unequal" world economic order for the increasing environmental degradation in third world countries, including India. He was deliverring the inaugural address at a workshop on "Importance of Environmental Law for Better Environmental Management" organised by the National Law School of India University (NSLUI) in Bangalore recently. He said environmental degradation could not be dissociated from development

The NLSUI has been entrusted with the task of institutionalising environmental-legal education, sought under the project, through which the Government of India aims at improving environmental management

Mr Justice Reddy expressed concern over the systematic shifting of hazardous and pollution-causing industries from the West to the third world countries The concept of globalisation had been tailor-made to benefit developed nations, especially the US, with its disproportionate greenhouse effect.

The developed countries "enjoy the fruits of industrial development. And the developing countries have become major dumping yards for environmentally hazardous industries," he said.

Chopping of trees for fuel and grazing of cattle by poor people "add to ecological imbalance And slums worsen the situation," he said.

Mr. Justice Reddy attributed poverty to population explosion. Increase in population led to environmental disaster. Lack of Funds was a major impediment in controlling atmospheric pollution He also called for more efficient effluent treatment plants in the country.

Mr Rajiv Gauba, Joint Secretary in the Union Environment Ministry, said the objective of the project was effective implementation of the environment action programme of the Government of India by strengthtening environmental management capacity in selected areas. The project was also aimed at reviewing the framework of laws governing environmental protection in the county Mr Gauba stressed the need for voluntary compliance of the law by industries and public He also sought the co-operation of law universities, NGOs, state governments and industries in the Centre's venture.

Dr Mohan Gopal of the World Bank, which is assisting the Government of India in financing the $62-million, underlined the need for appointing good lawyers by the pollution control boards at the Centre and state levels to take on polluting industries

Dr N.L Mitra, Director of National Law School of India University, said the project components included strenghtening environmental policy planning

Teacher Educators Meet

The XXXI Annual Conference of the Indian Association of Teacher Educators was recently held at Ponda (Goa). The theme of the conference was Teacher Education in the 21st century.

Inaugurating the conference the Chief Minister of Goa, Shri Pratapsingh Rane, emphasised the need for trained teachers even at the pre-primary level since untrained teachers did not treat children properly He observed that in some cases considerable stress was placed on children through home work and punishment. Prof. B.S Sonde, Vice-Chancellor, Goa University, highlighted the importance of teachers' acquaintance with computers and utilisation of electronic media in the education process.

Prof. C.L. Kundu, Vice-Chancellor of Himachal Pradesh University, in his presidential address, observed that the information flow and support systems were essential for quality education of teachers and teacher educators.

The papers presented and discussed at the conference included Education of Teacher Educators; Quality in Inservice Education of Teachers and Teacher Educators; Distance Learning and Teacher Preparation; Use of Information Technology in Education; Professionalism in Education; Accreditation and Recognition of Teacher Education Institutions. The keynote address delivered by Prof. R N Mehrotra was on Inservice Education of Teachers and Teacher Educators Content and Strategies.

Memorial Lectures in honour of Madhuriben Shah and TKN Menon were delivered by Prof. S.C. Sarma of Andhra Pradesh and Prof. R.P. Sharma of Deptt. of Education, University of Delhi, respectively

A panel discussion was organised on Accreditation and Recognition of Teacher Education Institutions. Prof J.S. Rajput, Chairman NCTE and Prof. R.P. Singh, representative of IATE's Executive Committee, comprised the panel.

During meetings of the Executive Committee and the General Body several important decisions were taken and resolutions passed. The Association reiterated its stand on weeding out poorly equipped institutions. The Association's journal *Teacher Education* is to be published bi-annually instead of quarterly. It was resolved to approach Government of India to initiate steps towards opening a Teacher Education University in the country to boost quality improvement in teacher education.

Prof. J.S. Rajput, Chairman NCTE, in his valedictory address, stressed the need for networking among institutions related to teacher education, at various levels, as a stratgegy for meeting the challenges of the twenty first century

R&D-Industry Meet Planned

Indian Institute of Technology (IIT), Delhi, in collaboration with Technology, Information Forecasting and Assessment Council (TIFAC), an autonomous body under the aegis of department of science and technology, proposes to organise a two-day R&D-Industry meet on February 17 and 18 at Calcutta to capitalise on the potential technologies available with various R&D organisations at the national level and commercialise them with the involvement of industry.

The focus will be on the technology development, transfer, absorption and commercialisation The meet aims at facilitating commercialisation of technology from lab to field and envisages scaling up technologies developed indigenously in the national laboratories and other independent technology institutions.

IIT, Delhi is reported to have taken upon itself the onus of identifying and recommending promising technologies available within the country along with a suitable industrial partner for financial support under home grown technology (HGT) activity.

According to IIT sources, Indian industry is going to have a mix of technologies imported and indigenously developed as an aftermath of industrial and economic liberalisation which have made access to foreign technologies easier. Technologies imported need to be tailored in complimentary and supplementary manner to suit the requirements of Indian industry.

Silkworms as Vaccine Factories

In a pioneering work that might help convert silkworms into futuristic vaccine-producing factories, researchers at the Indian Institute of Science (IISc) in Bangalore have cloned a potential Hepatitis Viral Antigen using the silk moth caterpillar. Their success in translating this rare genetic engineering feat into a commercial reality might open a new route for producing cheap vaccines and other biomolecules of therapeutic importance.

Prof KP Gopinathan, the leader of the IISc team said that the research, which has shown some encouraging results, had just completed the preliminary stage. However, the commercial vaccine production through silkworm route was still a long way off.

Last year, the same team had reported the possibility of using mulberry silkworm to produce human growth hormone, (a biomolecule of immense biomedical value in the treatment of dwarfism as well as in the healing complex wounds), using the silk moth larvae.

Explaining the technology, Dr Gopinathan said, they first genetically manipulated a virus, a known pathogen of the mulberry silkworm, in order to make it harbour foreign genes with code for the genetic products they want to produce.

Subsequently, they infected the silkworm with the modified virus (which is also called 'recombinant' virus) resulting in the high yield of the genetic product.

The advances in recombinant DNA technologies in the last couple of decades have permitted the large scale synthesis and commercial production of vital biomolecules of therapeutic value

These advances resulted in the ready availability of many 'rare' and otherwise 'difficult to get' molecules for treatment of diseases or overall health management in human and other animal species, said Prof Gopinathan.

Biotech corporations which have sprung up all over the world during the recent years have perfected the production of biomolecules such as hormones, enzymes and vaccines.

However, the cost of these newer products based on recombinant system still remains high and often beyond the reach of the common man.What distinguishes the IISc work from the conventional recombinant technology is the use of a higher organism for expressing the cloned foreign genes.

Visva-Bharati Convocation

Prime Minister Mr I K Gujral said that education must inculcate in students modern scientific temper while keeping alive all that was sobre and temperate in tradition. He was addressing the annual convocation of Visva-Bharati University in Santiniketan recently. He called upon the educationists to bear in mind Gurudev Rabindranath Tagore's messages that strikingly dovetail scientific attitude and tradition.

"To be purposeful, education should play the dual role of a liberator as well as a harmonising force," he said and urged the intellectual community to emulate Tagore in fighting "arrogant imperialism and parochial nationalism."

Citing the instance of Tagore who embodied one of the foremost critics of imperialism and narrow nationalism, the prime minister who is also the chancellor of Visva-Bharati university, argued that the "tug of war between the two" could only be offset by fostering balanced cultural understanding.

Viewed in the present age of crisis when sense of values has hit its nadir, the society, Mr Gujral pointed out, may look up to Tagore "for stimulating confidence in us and initiate steps in weeding out hatred, greed and fundamentalism from the society."

According to Mr Gujral, a university can play a pivotal role in restoring equilibrium in a fragmented society that is groping for proper direction.

Reminding the audience of Tagore's view that Visva-Bharati represented India "where she has her wealth of mind which is for all," the Prime Minister urged the teaching community to ensure that the university "offers to others hospitality of the best tradition."

While conceding that "everything is not at its best here as a lot of things are yet to be achieved and operations in many areas need to be bettered," Mr Gujral declared "I feel more honoured to be the chancellor of this university than the prime minister of India." Expressing satisfaction over the fact that the university was expanding its activities through innovation and experimentation, he felt that this centre of learning must house a central archive and a museum with proper infrastructure

Introduction of multimedia facility called INFLIBNET was a good beginning as the modern world would remain grateful to the university for opening its doors to a "great tradition created by great minds of India," he added.

Eminent Tagore song exponent Mrs Suchitra Mitra, artistes Mrs Sabitri Krishnan and Mrs Gouri Bhanja, sitarist Annapurna Devi, Magsaysay Award winner Mrs Mahasweta Devi, mathematician Mr Roger Penrose were conferred with the university's highest award Deshikottama Noted scientist Mr U R Rao was also given Rabindranath Tagore award by the Prime Minister Certificates to around 1,008 students of the university were also awarded by the Vice Chancellor

East Zone Inter-Varsity Youth Festival

East Zone Inter University Youth Festival was recently held at Mahatma Gandhi Gramodaya Vishwavidyalaya, Chitrakoot The Youth Festival was sponsored by the Association of Indian Universities with the financial aid from the Department of Youth Affairs & Sports, Government of India. In all 22 events were conducted under 3 categories In Literary events consisting of Elocution, Debate and Quiz, L N. Mithila University, Darbhanga claimed the trophy for best performance while for Fine Arts events covering items like Collage, Clay Modelling, On the Spot Painting, Poster Making, Cartooning, Mahatma Gandhi Gramodaya Vishwavidyalaya, Chitrakoot was adjudged the best. In the Stage Based events including Mime, Skit, One Act Play, Classical Instrumental Solo, Western Vocal, Group Song etc, Manipur University lifted the trophy for overall performance. Manipur University also claimed the trophy for all round best performance

For the first time in the history of Youth Festival, the focus shifted from competition to creative workshop where the youth expressed themselves on many burning issues relating to youth and national reconstruction Issues like human rights, drug abuse, women's might, national unity and neo-colonialism found expression in various modes like Skit, Mime, Plays, Paintings etc. Quite a number of items drew inspiration from Indian mythology and history of Freedom struggle.

Besides the host university, the participants in the Folk Dance event included Pt Ravishankar University, Raipur, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Awadhesh Pratap Singh Sanskrit University, Rewa, Guru Ghasidas University, Bilaspur and Manipur University, Imphal. The first prize went to Manipur University for their outstanding performance

On this occasion, a series 'Yuva Vani' were organised which provided a platform for the youth to project their agonies, aspirations and ideas of national reconstruction. The idea of Inter Knit and Bhasha Sangam were also innovative attempts for youths from different regions to intermingle with one another This held the promise of future network to emerge among the youth in eastern region.

Noted Sarvodaya activist Dr. Subba Rao, Social Worker, Ms Sucheta Goindi and Founder Chancellor and Social Worker Nanaji Deshmukh addressed the youth Dr. Subba Rao noted that the country could become strong only when its youth become strong Dr. Goindi cautioned the youth against rising consumerism. Nanaji urged the youth to work for abolishing poverty and unemployment by judicious use of locally available resources and appropriate new technologies

Prof T. Karunakaran, Vice-Chancellor, Mahatma Gandhi Gramodaya Vishwavidyalaya, in his concluding remarks expressed the hope that youth will use the medium of art to liberate the country from the clutches of backwardness and poverty. He urged them to fight against corruption

Mr. Sampson David, Sr. Cultural Officer, AIU said that the innovative features of the East Zone Youth Festival had set a new model He appreciated universities' promptitude in sending their cultural contingents, for promoting national integration, peace, harmony, brotherhood and other cultural and human values

Seminar on Management

A one-day Seminar on "Key Aspects of Management" was organised by the B.B A Faculty of C P Patel & F H Shah Commerce College, Anand. Inaugurating the seminar Prof Dhaval Mehta, Director, B.K. School of Management, Ahmedabad, enlightened the prospective managers about the changes taking place globally as also in India. He emphasised strategic management concentrating on marketing strategy being the most critical element for success He also pointed to the dominance of computer literacy and information technology in the modern era.

Dr. (Mrs.) M.K Patel, Co-ordinator, B.B.A. Programme, stressed the need for updating the tools of management with the help of continuous effort, and advocated such academic ventures to be undertaken from time to time.

Dr. C.B. Patyal, Hon. Secretary, Sardar Patel Education Trust, who presided, pleaded for accountability and result oriented assessment in lieu of procedural hurdles in administration of non-business charitable organizations.

In the technical sessions Dr. Shailesh Gandhi, a professional manager from Baroda, expressed his views on "Financial Management in Post Liberalisation era," while Dr H J Jani, Head, M.B.A Department, Sardar Patel University, deliberated on the need for Total Quality Management Prof. R K. Prabhakar spoke on Human Resource Management and made his analytical observations on "Career planning and stresses of managers "

Madras Varsity Honours Dr. Prodi

The Italian Prime Minister, Dr Romano Prodi, was conferred a honorary Doctor of Science degree by the Madras University at a "special convocation" held in Chennai recently. The degree was conferred by the Chancellor and Governor, Ms Fathima Beevi, "in recognition and appreciation of his great contributions to the subject of political economy and achievements in administering national enterprises, besides his dynamic leadership in taking Italy to greater strength and stability."

The Premier, known for making the Italian economy achieve a turn-around in a short time, said by his visit he wanted to demonstrate that the "spectacular growth" of Asia in the last few years would not create a clash of civilizations, but open avenues for collaboration for the benefit of both Asians and Europeans.

Europe, he said, could not afford to ignore the growing Asian economies, and was developing a new policy towards Asia.

The end of the Cold War and bipolarism had re-established the importance of diplomacy as a tool to find solutions to common problems, which sooner or later, would hinder "our capacity to progress towards a better future."

Dr Prodi said, the trade and economic relations between Europe and Asia "will become a crucial element of future international political and economic systems "

Europe could not ignore nations such as India, China and Japan. Europe, in fact, would not be able to develop a truly global policy until and unless it managed to become an Asian actor as well

It was no coincidence that the trade between the two regions had doubled since 1988, faster than the American trade in the region.

The Vice Chancellor, Mr. P.T. Manoharan, read out the citation. The Education Minister and pro-Chancellor, Mr. K. Anbazhagan, was among those who participated

News from Agricultural Universities

Horticulture Officers Workshop

Prof. J B. Chowdhury, Vice-Chancellor of CCS Haryana Agricultural University (CCSHAU) urged the farm scientists and Horticulture officers of the State to do utmost efforts to popularize cultivation of such fruits as could grow best under the climatic conditions of Haryana state He also suggested setting up of processing units and suitable marketing arrangements for the horticultural produce. Prof. Chowdhury was speaking at the inauguration of the Horticulture Officers Workshop in Hisar recently.

He said cultivation of horticultural crops would help provide additional income to the farmers, adding that there was vast scope to boost horticulture in Haryana. The fruits such as ber, aonla, papaya, litchi, mango could be raised successfully in the state. Moreover, technology for cultivation of these fruits was available with the university, but the need was only to take this technology to the farmers.

He said that though floriculture was catching up in the state, much required to be done as far as research to standardize technology in this field was concerned About mushroom cultivation, he said that the state no doubt had achieved a leading position, but its sale sometimes did not bring desired returns to the growers To prevent economic losses on account of lack of marketing and storage facilities, he urged establishment of fruit and vegetable processing units at specific locations. The Vice-Chancellor called upon the farmers and orchardists present on the occasion to maintain quality if they wished more returns from their produce.

The State Horticulture Director, Dr. Kartar Singh, in his presidential address, urged the farm scientists to concentrate on problem based research rather than working on their whims. He said that horticulture was more profitable than cultivation of crops, for it provided 20 per cent more returns and atleast 5 per cent more employment. Expressing concern on the postharvest losses to the tune of 25-40 per cent, he asked the scientists to work in this direction and develop suitable post-harvest technology.

News from UGC

Countrywide Classroom Programme

Between 8th and 14th February, 1998 the following schedule of telecast on higher education through INSAT-1D under the auspices of the University Grants Commission will be observed. The programmes are telecast on the Doordarshan's National Network from 7.15 to 8.00 a.m. every day except on Saturdays & Sundays These programmes are also telecast on Doordarshan's National Network from 6.00 to 7.00 a.m. four days a week i.e. on Tuesdays, Thursdays, Saturdays and Sundays. On DD2 University Video Lecture Courses will be shown at midnight between 0000-0030 hrs. and in the morning between 10-10 30 a.m. on Monday through Friday.

Hindi Programmes are being telecast on Mondays, Wednesdays & Fridays from 6.00 to 6 30 a m.

8.2.98
"Round Table-7"
"Amrita"
UVLC
No Telecast

9.2.98
"Matter, Mass Inertia & Weight"
"Tips on Saving Fuel"
"Making the Right Choice"
"General Agreement on Trade & Tariff-2"
"Recent Trends in Psychological Disorders — Caring for the Mind-Uppermost in our Minds"
"Agriculture Herb — Herbs for Health-2"
UVLC
"Religion of Early and Later Vedic Literature"
"Nervous System and Neural Integration-1"

10.2.98
"Metallurgical Marvels of India Extraction of Zinc-1"
"Mapping Our Earth"
"Snakes"
"Sand Dunes — The Moving Mountains of the Desert"
"That's the Right Candidate"
"Sand Dunes — The Moving Mountains of the Desert"
"That's the Right Candidate"
"DIPEX-Diploma Exhibition — An Exposition"
"An Eternal Beautiful City : Bhopal"
"Nuclear Medicine : Magic Bullet Therapy"
UVLC
"Sociological Ideas"
"Elementary Integration and Applications-9"

11.2.98
"A Story inside the Shell"
"Entrepreneurship-2 : Reaching out"
"Water Chemistry in Thermal Power Station-3"
"Introduction to Anthropology-2"
"Mass Literacy — The Third Eye"
UVLC
"Elements of Design"
"Salinity of the Ocean"

12.2.98
"Water Resources"
"Integral Pedagogy Process-2 : Context"

"Women in Victorian Literature — The Feminine Self : A Victorian Portrait"

"Question Time-53"

"Entrepreneurship-3 : Turning Around"

"Computer Networks-1"

"Special Education for Disabled"

"Communication : Art — An International Language"

UVLC

"Issues Before the Constituent Assembly"

"Pricing of Merit Goods"

13.2.98

"Philatelic Pleasure"

"Entrepreneurship-4 : Rise Above the Rest"

"Round Table"

"Role Model : The Sanitation Man of Andharmanik"

UVLC

"Problem Solving"

"Divisible Profits-1"

14.2.98

"Role of Remote Sensing in Disaster Management-2"

"Give me a Chance"

"Why Future Studies? A Discussion"

UVLC

No Telecast

Hindi Telecast

प्रात: 6.00 से 6.30 बजे तक

9.2.98

"कैफ भोपाली : एक जिन्दा ख्वाब"

11.2.98

"एक्यूपंक्चर : एक चिकित्सा पद्धति"

"खजूर का तेल"

13.2.98

"गजल : एक सूक्ष्म विवेचन"

Grants Linked to Performance

The University Grants Commission (UGC) is reported to have decided to enhance the ninth Five-Year Plan Grant of only those universities which had shown "good academic" result during the last five years.

The Commission has decided to initially release only two-thirds of the grants. The remaining one-third would be released after assessing the performance of the universities.

If the commission successfully released the grants according to the performance of the university concerned, a new dimension would be introduced to allocation of grants for higher education. For the first time, the grants would be released on performance rather than the strength of an university.

Different parameters have been set by the commission for deciding the performance of universities According to the UGC Vice-Chairman, Professor N C. Mathur, a large amount of data from different universities have been collected for analysing their performance

An expert committee comprising academicians from various fields had been constituted to analyse the data, he added. The committee was likely to submit its performance grade report very shortly.

"The universities would be put under different grades depending on the analysis of the committee," Professor Mathur added. The university with a better grade would be given more grant in comparison to a university with a lower grade. "Most of the universites will be graded according to their performance before releasing the grants," he said.

The enhancement of grants would be only for universities with very good performance grades

It was also learnt that the new courses to be funded by the commission would be allocated only for those universities which have a good performance grade.

For universities with extremely poor performance, the commission would not allow introduction of new courses, even if the universities wanted to start a self-financing course.

Universities with fair performance would be allowed to introduce courses on the condition that they are self-financed by the institutions themselves.

UGC officials said that this was being done so that universities could evoke a sense of responsibility for public money and accountability for the decline in academic excellence.

AIU NEWS

Computers in University Management

The Association of Indian Universities, in collaboration with the School of Information and Computer Sciences of Indira Gandhi National Open University, organised a five-day training programme for senior university administrators on Computers in University Management.

The themes covered in the programme were (a) use of computers in increasing the efficiency of the functioning of universities in India; (b) growth of computer facilities and current status of use of computers in universities in India; (c) planning for the future computer expansion and acquisition; (d) perception, opinion and attitude of the staff (academic, non-academic) towards automation; and (d) modernisation and assessment of training needs for various uses of computers in administrative, pedagogical and research activities and software requirements thereof.

Inaugurating the programme Prof. K.B. Powar, Secretary General, Association of Indian Universities, emphasised the need and importance of computerisation in the functioning of Indian universities in the present era of information technology.

The training programme began with an introduction of the fundamentals of computers Participants were also introduced to the basic hardware (1/0 devices and storage devices) and software components of a computer system The programme covered windows 95, office 97, word 97, mail merge and document proofing, working with tables and columns in words, power point 97, excell 97 and internet The orientation of the training programme was more of practical nature Each of the theory sessions was followed by a practical training session and participants were given hands on practice

Dr Ratan Dutta, former Chief of Super Computers Project, Govt of India, delivered a lecture on Impact of Information Technology on University Administration Dr D C Pant, Director, SR&E, IGNOU spoke on Use of Information Technology in Evaluation System of Universities. Prof. A D Saha, Director, DOE discussed the development of low cost multimedia educational products. Dr. Mridula Sharma, Asstt. Director (Research), AIU discussed the use of computers in management of information required for the efficient functioning of universities. Prof. M.M. Pant discussed the emerging technology and its impact on education in the concluding session which was chaired by Prof. J. Jha, Pro-Vice Chancellor of Indira Gandhi National Open University.

Over 25 senior administrators of universities in India participated in the programme.

News from AICTE

AICTE Awards

The All India Council for Technical Education has decided to introduce (a) Visvesvaraya Award in line with S.S. Bhatnagar Prize Award by CSIR, and (b) Young Engineers Award in line with Young Scientists Award of INSA.

The Council has also approved the scheme entitled "Award of prizes on the best technical textbooks in Hindi" being launched by the AICTE in 1997-98. The possibility of extending the scheme to other Indian Languages is also being explored

The Council has agreed to extend the scheme of Quality Improvement Programme (QIP) to all the disciplines of technical education.

The Council also proposes to introduce Early Faculty Induction Scheme. The Scheme basically involves selecting talented students for a teaching career during their seventh semester of Engineering, and paying them an appropriate and attractive fellowship as a stipend after graduation and placing them in a few select national level Institutions for training towards a PG/Ph.D Degree. After completion of their degree, they will be better equipped for placement by various Institutions for the post of Lecturer or Reader depending upon whether they graduate with a PG/Ph.D Degree. AICTE will act as a facilitator of the programme.

The Council has also agreed that the per diem allowances under AICTE scheme of Travel Grant for attending Conferences/Symposia, etc. abroad be revised as per the existing Government of India Rates, Further, the Council may encourage, wherever possible, young engineers/technologists by providing even 100% travel assistance with a rider that the recipient will not be eligible to receive travel grants for the next five years.

Book of Significant Interest

Rasa in Aesthetics

An Application of Rasa Theory to Modern Western Literature

PRIYADARSHI PATNAIK

xvi, 280 p , Bibliography, Glossary, Index, 23 cm

ISBN 81-246-0081-3 Rs 375

Dr Patnaik elucidates the fundamentals of the *rasa* theory and applies the canons of this theory to various modern western literary works, Chinese love lyrics and the Japanese haiku poems Its historical development and recognition among other ancient Indian theories are discussed Dr. Patnaik has tried to prove the validity of the theory even today and show that the theory is universal in its application

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BOOK REVIEW

Valuable Perspectives in Distance Education

K.K. Bajaj*

Murali Manohar, K. (Ed). Distance Education : Theory and Practice. Prof. G. Ram Reddy Commemorative Volume II — Media and Communication Technology. Open Learning Society C/o Dr. B.R. Ambedkar Open University, No. 46, Jubilee Hills, Hyderabad-500 033; Pp. viii + 161. Rs. 250.

The second Prof. G. Ram Reddy Commemorative volume on Distance Education — Theory and Practice with the subtitle *Media and Communication Technology* is a collection of articles on the theme of phenomenal growth and use of hi-tech multimedia advances in Distance Education. Technological innovation has been a great catalyst in extending the access and reach of the system The progress from its conventional print media to the present processing of information through multimedia technology support has been a great leap forward. Various issues linked to academic constructs which emanate from the learners' social backgrounds and practices being followed in distance learning institutes have been comprehensively critiqued.

The collection, as usual, opens with preface and acknowledgement by the editor with the remarks on the emergence of technological services which have immense potential to support teaching-learning activities at the mass level. Paying a tribute to Dr. Reddy for all his innovative insight and innovation the editor gratefully remembers him as 'the Father of Distance Education'.

Media plays an important role as a conduit for the flow of information. Now it also contributes to democratisation of education. It perpetuates our cultural identity and acts as repository of knowledge. Science and Technology contribute to material prosperity and satisfy human urge for knowledge. With this overall idea R. Amritavalli while writing on "Communication Technology and the Evolution of System of Knowledge and Education" has described the role of knowledge in society The exposition has a subtle but substantial bearing of the theme of the book as such.

Audio visual inputs have offered motivation and stimuli to spread education. They have transformed the instructional strategies. They have also contributed to the management of distance education mode. Santosh Panda has dealt with important dimensions and possibilities of audio visual aids to improve the techniques of learning. The departure from print material, with a reliance on computer assisted instruction with allied high-tech systems, has been projected to mediate the teaching learning process. Technology intensive inputs are fast changing the scope and content of distance education. Its instructional design and development is being systematically changed with ensuing attitudinal changes. The old practices are getting converged for improving performance of instructional designers as well. The growth of distance education and its collaboration with emerging technological advances has been highlighted. The author has offered critical insight to visualise the gains of multimedia inputs in distance education.

New information communication technology offers a remarkable and revolutionary pathway to the success of distance education. Rapid advancement supplementing human resource through a cost-effective and dynamic system are the highlights of Abdul W Khan's article on "Utilisation of Communication Technology for Distance Education". With its open approach and built-in flexibility, distance education is the hope of our masses With the emergence of new delivery methods supported by technological advances, it offers greater variety and control over learning inter-activity. Technology driven approach offers wider acceptability While his article advocates the use of media through its high technological inputs, its capital cost areas have not been fully explored. Looking to socio-economic status of majority of our learners their capabilities to receive these technological inputs would always be in doubt. Besides the potential of educational institutions of offer the required support system has also evaded the concern and comment of the writer

In yet another article on "Communication Technology and Distance Education", satellite communication, direct broadcast satellite, digital audio tape, transnational channels, INSAT broadcasts, E-mail etc, have been cited to programme educational inputs for learners of the distance mode, but here again the socio-econnomic capabilities of the receivers have not been touched by Sushma Devayani. V. Rama Rao in his article on "Electronic Media

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**Dean of Colleges-cum-Director, College Development Council, Himachal Pradesh University, Shimla-171 005.*

Components at the Indira Gandhi National Open University" has again voiced the virtues of the universally acclaimed electronic media for improvement of pedagogic inputs. The emphasis on production methodology, delivery system and future possibilities while exploring the unprecedented growth of technology in fields of telecommunications, computers, broadcasts etc, has been well established. Indira Gandhi National Open University is no doubt a pioneer in the field with global compatibility and assistance but the other open universities have yet to go a long way before adopting its designs.

Impact of communication technology innovations on "Continuing Education Programmes for Working Professionals" has been convincingly brought out by A Kalanidhi for rapid improvement in their existing knowledge and skills The electronic switching, optical fibre transmission, satellite system, digital communication, internet, E-mail, Fax, telex etc, with all their ease of control and interaction, have been cited to support the contention of improving efficiency in continuing education programmes for working professionals. The anticipated advent of information age through the establishment of local and global communication network with the "Evolution of Support Systems for Open and Distance Education through Computer and Telecommunication Technologies" is the topic of John Dekkers' exposition. He has offered an able insight into the technological aspect of requirements of open learning systems. The evolution of support system all poised to provide new opportunities has been well brought out. In an investigative study the "Use of Radio and Audio Visual Aids by Students", G. Srinivasacharyulu has featured students support services as an important component of the instructional system. He has advocated new delivery models to improve on the credibility of distance education mode. K. Murli Manohar, with a focus on "Training Needs in the use of Media and Technology for Distance Education", has lauded the role of information technology while discussing issues relating to training needs and the use of media, with the suggestion that each distance education institute, on its own, should generate staff development programme.

Greville Rumble while referring to universal trends in higher education has emphasised the need towards networking of communication means. In an era of change, the learning needs of the community have to be identified The motivation for change, has to come through solution of intramural programmes and recognition of people's needs to access continuing education. While campus based universities have to invest in infrastructure the course development has to be economically viable and effective. They have to take care to establish quality of their programmes. As the students have to be taught on campus and off campus the benefits of emerging technologies have to be taken into account for networking to respond to demands of the future

Writing on "Convergence of Possibilities and Problems for the Post-Secondary Sector" Margaret Haughey feels excited about the possibilities which the continued development of telecommunications have to provide in the Canadian context. Post-secondary education being a matter of active concern there, it has attracted the use of innovative technologies and information based services while also providing costeffective access. There the technological progress continues with the model of convergence of post-secondary institutions which are also expected to be more self-sustaining and progress oriented.

In the last article on "Distance Education Technologies: A Project Management Perspective" by James C. Taylor and Glorie Carter once again the focus is on the ever-changing paradigms of distance education vis-a-vis its ever-changing delivery methods. The paper offers technical orientation while exploring the possibilities of development of CD-ROM based interactive multimedia products. The Australian experience in this behalf has been cited to sustain the view that the impact of CD-ROM technology will depend ultimately on consumer contexts and the access available to micro-computers with CD-ROM capacity which of course instantly is not much relevant in the Indian context.

In its totality the collection offers a mix of arguments and analyses of technology supported status of distance education. As some of the scholars on the basis of their experience in developed countries have suggested runway use of technology, the Indian context sadly offers no such possibility with our small means. Except IGNOU which started delivering televised interactive lessons by using INSAT-2B satellite in 1995 and which has a network of regional centres and study centres, no other institution has been able to explore the possibilities of multimedia inputs and dedicate the same to the exclusive use of our learners. All the same the present volume presents a thematic spectrum of articles which offer substantial information about possibilities of the use of latest technology. The volume suffers from numerous proof reading mistakes which even tell upon the patience of the reader. The book gains our qualified critical acclaim as it stretches our gaze over future possibilities of use of technology despite the fact that the views expressed in it fail to situate themselves in the Indian context and are mostly country specific. Nonetheless the collection meets the limited purpose of contributing to the information base of media and communication technology in distance education.

AGRICULTURAL SCIENTISTS RECRUITMENT BOARD

KRISHI ANUSANDHAN BHAWAN : PUSA : NEW DELHI

Advt. No. 1/98

Applications are invited for the following Scientific posts under the different Institutes of the Indian Council of Agricultural Research, New Delhi.

Joint Director of Institute.

Pay Scale : Rs 4500-7300.

Indian Agricultural Research Institute, New Delhi.

1. Joint Director (Extension) (One Post). Qualifications Essential : (i) Doctoral degree in any branch of Agricultural Science with preference to Agricultural Extension (ii) At least 5 years experience as a Principal Scientist (Rs 4500-7300 — or in an equivalent position OR An eminent scientist having proven record of scientific contribution working in a reputed organisation/institutes having at least 18 years experience in the relevant subject (iii) Evidence of contribution to research/teaching/extension education as supported by published work/innovations

Desirable : Experience in a Research Management Position.

2. Joint Director (Research) (One Post). Qualification Essential : (i) Doctoral degree in any branch of Agricultural Sciences. (ii) and (iii) as in Item No 1 (ii) and (iii) above (iv) Specialisation in Agricultural Science particularly in upstream research **Desirable :** Experience in a Research Management Position.

Principal Scientists

Pay Scale : Rs 4500-7300 **Age :** Below 50 years (There will be no maximum age limits for the ICAR employees Relaxation to SC/ST candidates may be given in accordance with the orders issued by the Govt. of India from time to time)

Directorate of Oilseed Research, Hyderabad

3. Principal Scientist (Agronomy) (One Post). Qualifications Essential : (i) Doctoral degree in Agronomy. (ii) 10 years experience excluding the period spent in obtaining the Ph D degree (subject to maximum of 3 years in research/teaching/extension education provided 3 years experience is as a Senior Scientist (Rs 3700-5700 or in an equivalent position (iii) As in Item No 1 (iii) above. (iv) Specialisation and experience of agronomical research in annual oilseeds crops

NRC for Medicinal And Aromatic Plants, Anand (Gujarat)

4. Principal Scientist (Horticulture) (One post.) Qualifications Essential : (i) Doctoral degree in Horticulture (ii) & (iii) as in Item No 3 (ii) & 1 (iii) above (iv) Specialisation in Horticulture crops preferably Medicinal and Aromatic Plants

Central Institute of Freshwater Aquaculture, Bhubaneswar.

5. Principal Scientist (Fish & Fishery Science) (Three posts). Qualifications Essential : (i) Doctoral degree in Fishery Science/Zoology/LifeScience Aquaculture/Mariculture (ii) & (iii) as in Item No. 3 (ii) & 1 (iii) above (iv) Specialisation in Fish/Shel Fish breeding and culture

Central Arid Zone Research Institute, Jodhpur.

6. Principal Scientist (Soil Phy. Soil & Water Conservation) (One Post). Qualifications Essential : (i) Doctoral degree in Soil Science. (ii) & (iii) as in No. 3 (ii) & 1 (iii) above. (iv) Specialisation and experience in the field of Soil and water conservation.

ICAR Research Complex for Goa, Ela Old Goa

7. Principal Scientist (Horticulture) (One Post). Qualifications Essential : (i) Doctoral degree in Horticulture (ii) and (iii) as in Item No 3 (ii) and 1 (iii) above (iv) Specialisation and working experience on field problems of fruit crops/plantation crops.

8. Principal Scientist (Animal Reproduction) (One post). Qualifications Essential : (i) Doctoral degree in Animal Reproduction/Animal Nutrition (ii) and (iii) as in Item No 3 (ii) and 1 (iii) above (iv) Specialisation and working experience on practical problems of Animal Reproduction in relation to Nutritional aspects.

Central Agricultural Research Institute, Port Blair.

9. Principal Scientist (Fish & Fisheries Science) (One post). Qualifications Essential : (i) Doctoral degree in Fish and Fishery Sciences/Aquaculture/Marine Biology/Zoology with specialisation in Fisheries or related subjects. (ii) & (iii) As in Item No. 3 (ii) and 1 (iii) above. (iv) Specialisation in Fishery Resource assessment, harvest and post harvest technology and coastal zone management in remote areas particularly in humid tropics, experience in fisheries related problems of island ecosystem/extension activities

Senior Scientist

Pay Scale : Rs 3700-5700 **Age :** Below 45 years (There will be no maximum age limits for the ICAR employees. Relaxation to SC/ST candidates may be given in accordance with the orders issued by Govt. of India from time to time.

Vivekananda Parvatiya Krishi Anusandhan Sansthan, Almora.

10. Senior Scientist (Soil & Water Conservation Engg.) (One post). Qualifications Essential : (i) Doctoral degree in Soil & Water Conservation Engineering (ii) Five (5) years experience (excluding the period spent in obtaining the Ph D. degree, during service, subject to a maximum of 3 years) in research/teaching/extension education as Scientist (Rs 2200-4000) or in an equivalent position in the relevant subject. OR Masters degree in case of Engineering disciplines with 8 years experience in research/teaching/extension education as Scientist (Rs. 2200-4000) or in an equivalent position in the relevant subject (iii) as in Item No 1 (iii) above (iv) Specialisation in Water and Watershed management in hilly region

11. Senior Scientist (Plant Breeding) (Two posts). Qualification Essential : (i) Doctoral degree in Plant Breeding (ii) Five (5) years experience (excluding the period spent in obtaining the Ph D degree, during service, subject to a maximum of 3 years) in research/teaching/extension education as Scientist (Rs 2200-4000) or in an equivalent position in the relevant subject (iii) As in item No. 1 (iii) above (iv) Specialisation in Breeding of important cereal crops grown in hills.

12. Senior Scientist (Agricultural Extension) (One post). Qualifications Essential : (i) Doctoral degree in Agricultural Extension (ii) & (iii) As in Item No 11 (ii) & 1 (iii) above. (iv) Specialisation in research and extension methodology especially suited to small & marginal farmers in hilly areas.

Indian Institute of Pulses Research, Kanpur

13. Senior Scientist (Agricultural Extension) (One Post). Qualifications Essential : (i) Doctoral degree in Agricultural Extension (ii) & (iii) As in Item No 11 (ii) & 1 (iii) above. (iv) Specialisation and experience of working in the field of transfer of agricultural technology

14. Senior Scientist (Genetics and Cytogenetics) (One post). Qualifications Essential : (i) Doctoral degree in Genetics/Cytogenetics/Biotechnology (ii) & (iii) As in Item No. 11 (ii) & 1 (iii) above (iv) Specialisation and experience of working in genetics/cytogenetics of field crops

15. Senior Scientist (Agril. Microbiology) (One post). Qualifications Essential : (i) Doctoral degree in Microbiology. (ii) & (iii). As in Item No 11 (ii) & 1 (iii) above. (iv) Specialisation and relevant experience of working preferably in the field crops.

16. Senior Scientist (Nematology) (One post). Qualifications Essential : (i) Doctoral degree in Nematology/Zoology with specialisation in Nematology. (ii) & (iii) As in Item No. 11 (ii) & 1 (iii) above. (iv) Specialisation and experience of working in field, preferably in field crops.

17. Senior Scientist (Soil Sci./Soil Chemistry/Fertility/Microbiology) (One post). Qualifications Essential : (i) Doctoral degree in Soil Science/Soil Microbiology (ii) & (iii) As in Item No 11 (ii) & 1 (iii) above. (iv) Specialisation and experience of working preferably in crops plants

Central Institute of Freshwater Aquaculture, Bhubaneswar

18. Senior Scientist [Fish & Fishery Science (Fish, Molecular Biology/Molecular Genetics)]. (One post). Qualifications Essential : (i) Doctoral degree in Molecular Biology/Genetics Engineering/Fishery Science/Zoology/Life Science/Aquaculture (ii) & (iii) As in Item No 11 (ii) & 1 (iii) above (iv) Specialisation in Fish/Animal Genetics/Fish/Animal Molecular Biology/Fish/Animal Genetic Engineering

19. Senior Scientist (Fish & Fishery Science). (One post.) Qualifications Essential : (i) Doctoral degree in Fishery Science/Zoology/Life Science/Aquaculture (ii) & (iii) As in Item No 11 (ii) & 1 (iii) above (iv) Specialisation in Fish Physiology/Animal Physiology (Reproductive & Endocrinology, Nutritional)

20. Senior Scientist (Fish & Fishery Science — Fish Pathology). (One post). Qualifications Essential : (i) Doctoral degree in Fishery Science/Zoology/Life Science/Aquaculture/Marine Biology/Mariculture/Marine Science/Fish Pathology/Fish Immunology/Virology/Bacteriology and other related subjects (ii) & (iii) As in Item No 11 (ii) & 1 (iii) above (iv) Specialisation in Fish/Animal Pathology/Immunology/Disease diagnostics

NRC for Arid Horticulture, Bikaner

21. Senior Scientist (Horticulture). (One post). Qualifications Essential : (i) Doctoral degree in Horticulture (ii) & (iii) As in Item No. 11 (ii) & 1 (iii) above (iv) Specialisation in improvement of Fruit Crops/Fruit Breeding

Zonal Coordination Unit VI, CAZRI Campus, Jodhpur

22. Senior Scientist (Horticulture) (One post). Qualifications Essential : (i) Doctoral degree in Horticulture (ii) & (iii) As in Item No. 11 (ii) & 1 (iii) above (iv) Specialisation in Arid Horticulture

23. Senior Scientist (Agril. Extension). (One post). Qualifications Essential : (i) Doctoral degree in Agril Extension (ii) & (iii) As in Item No 11 (ii) & 1 (iii) above (iv) Specialisation in communication technique and/or training

Central Institute of Agricultural Engineering, Bhopal

24. Senior Scientist (Mechanical Engineering) (One post). Qualifications Essential : (i) Doctoral degree in Mechanical/Industrial Engineering or equivalent (ii) & (iii) As in Item No 10 (ii) & 1 (iii) above (iv) Specialisation in Production Technology

NRC on Orchids, Gangtok.

25. Senior Scientist (Genetics). (One post). Qualifications Essential : (i) Doctoral degree in Genetics/Cytogenetics/Agril Botany, (ii) & (iii) As in Item No 11 (ii) & 1 (iii) above (iv) Specialisation in Genetics & Cytogenetics of ornamental crops/orchids

NRC for Oil Palm, Eluru

26. Senior Scientist (Plant Breeding). (One post). Qualifications Essential : (i) Doctoral degree in Plant Breeding/Horticulture (ii) & (iii) As in Item No. 11 (ii) & 1 (iii) above (iv) Specialisation on crop improvement work of perennial crops

Important Note : (1) The candidates selected for appointment to the posts in Animal Science disciplines and possessing degree in Veterinary Science/Veterinary Science and Animal Husbandry followed by Masters and Doctoral degree in the relevant discipline will also be entitled to non-practicing allowance as admissible under the rules from time to time subject to fulfilment of conditions of entitlement for the same as prescribed by the Council (2) The posts appearing at Sl. No. 1 & 2 will be filled up on tenurial basis for a period of five years However, retirement age for all the scientific posts is 60 years. (3) Candidates who have already applied for the post appearing at Sl. No 9 in response to previous advertisement of ASRB, must also send fresh application The fee already paid by the candidate alongwith the earlier application will be adjusted. To facilitate this they are advised to indicate the particulars of the fee already paid in the relevant column of the application form CLOSING DATE FOR RECEIPT OF APPLICATION IN AGRICULTURAL SCIENTISTS RECRUITMENT BOARD **16.3.1998.** (For candidates from aboard and in the Andman and Nicobar Islands, Lakshadweep, Minicoy and Amindivi Islands, States/Union Territories in the North-Eastern Region, Ladakh division of J&K State, Sikkim, Pangi, Sub-division of Chamba, Lahul and Spiti districts of Himachal Pradesh, last date will be **31.3.1998**).

General Instructions :

1 For application form, please write to the Secretary, Agricultural Scientists Recruitment Board, Krishi Anusandhan Bhawan, Pusa, New Dehli-110 012 Request for forms must specify Advertisement No 1/98 name of the post and Item No. and should be accompanied by self addressed unstamped envelope (23x10 cms size)
2 Separate application with separate fee separate No Objection Certificate separate Vigilance Clearance Certificate is required for each post
3 Application form complete in all respects, should reach the Officer of the ASRB together with the application fee of Rs 8/- (No fee for SC/ST candidates) in the form of crossed Indian Postal Order drawn in favour of the Secretary, Agricultural Scientists Recruitment Board by the closing date Applications received after the closing date will not be entertained. In case a candidate anticipates delay in forwarding of his application through proper channel, he must send an advance copy of the application alongwith the fee which must reach this office on or before the closing date Postal Order(s) obtained before the date of publication of advertisement and after the closing date of the application will not be accepted.
4 The candidates should fill each and every column of Application Form at the appropriate place. Wherever the space is not sufficient they could add extra sheet but it should be strictly in the prescribed format
5 Candidate abroad may apply on plain paper and send their applications together with an International Postal Order/Bank draft covering the application fee drawn in favour of the Secretary, Agricultural Scientists Recruitment Board so as to reach this office of ASRB by the closing date. In countries where regular commercial channels are not available, the candidates can deposit the application fee in local currency with the Indian Mission/Posts abroad, who in turn will issue an R.B.I. draft in favour of Secretary, Agricultural Scientists Recruitment Board, New Delhi.
6. The prescribed Essential Qualifications are minimum and possessing of same does not entitle candidates to be called for interview. Where the number of applications is large, the Board may restrict the number of candidates for interview to a reasonable limit on the basis of qualifications and experience higher than the minimum prescribed in the advertisement
7 If required, candidates must appear for personal interview.
8 Higher initial pay may be recommended by the ASRB for specially qualified and experienced candidates for all the posts.
9 T.A. contribution will be admissible to those called for interview as per ICAR Rules
10 Crucial date for determining the age limit for candidates will be the closing date for receipt of applications from candidates in India
11 The option of use of Hindi in interviews exists in the Board.
12 Canvassing in any form will disqualify a candidate.

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CLASSIFIED ADVERTISEMENTS

Society of Pilar's
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FR. AGNEL COLLEGE OF ARTS AND COMMERCE,

PILAR, GOA-403 203

Applications are invited with full bio-data for the post of PRINCIPAL so as to reach the Chairman **within fifteen days** from the date of publication of this advertisement

Minimum Requirements :

a) The Candidate should have been an approved teacher in a College or University, with contributions to educational innovations, design or new courses and curricula

b) Good academic record with Ph D degree or equivalent published work and at least 8 years of teaching experience at the level of Lecturer or above, in a College or University

OR

Good academic record with M Phil degree and at least 10 years of teaching experience at the level of Lecturer, or above in a College or University

Scale of pay : Rs 3700-125-4700-150-5300-200-5700 with admissible allowances as per Goa Government rules

Date of Joining : 1.6.1998

Applications should contain the following informations

i) Name, date of birth, designation of the post held, academic qualifications, teaching and administrative experience, research papers written/read in the seminar/conferences Certified xerox copies of statements of marks secured at SSC, Inter/HSSC, B.A., B Sc., B Com., M A, M Com, M Litt examinations

ii) Certified xerox copy of the approval granted by the University at the time of appointment in the afiliated College

iii) Certified xerox copy of any higher degree secured

iv) Experience certificate regarding requirement mentioned in (a) of the advertisement

v) Certified copy of the birth certificate

Persons who are already employed should send the application through proper channels Break in service should be counted for

Incomplete applications will not be entertained

Rev. V. Azavedo
CHAIRMAN

TEZPUR UNIVERSITY

(A Central University)
Tezpur, Assam-784 001
Advertisement No. F-13-1-97
Dtd. : 27th Dec. 1997

Applications in prescribed form obtainable from the office of the undersigned are invited from the citizens of India for the post of

Reader : In Information Technology

Qualification : Ph D in Information Technology or Computer Science and uniformly bright academic career.

Scale of pay : Rs 3700-125-4950-150-5700/- (Pre-revised)

The application form with detailed information may be obtained on request along with a self-addressed stamped envelope from the office of the undersigned

Last date of receipt of completed application is **21 Feb. '98.** An application fee of Rs 100/- (One hundred) only through Bank Draft drawn in favour of Tezpur University and payable at SBI, Tezpur (ST/SC candidates are exempted from payment of application fee) must be paid

Dr. M.R. Sharma
SV/CD/116/1 **REGISTRAR**

RABINDRA BHARATI UNIVERSITY

56A, B.T. Road, Calcutta-50
Employment Notification No. RB/28/98
Dated : 19-01-1998

Applications are invited for two posts of Assistant Registrar (Administration), one post reserved for SC and the other reserved for ST, in the scale of pay of Rs 2200-75-4000/- plus allowances as may be admissible from time to time

Qualification and Experience

A. Essential :

i) Uniformly good academic record of Master's and Bachelor's level

ii) At least 5 years teaching and/or administrative experience in a supervisory capacity in a University or Research Institute/Institute of Higher Learning or Government/Semi-Government organisation

B. Desirable :

i) A degree in Business Management or Law or Statistics

ii) Knowledge of Computer Application

Minimum Age : 30 years

Fulfilment of essential and desirable conditions does not guarantee a call for interview The University reserves the right to decide on the number of candidates to be called for interview for a particular post

Stipulations in respect of experience and age may be relaxed by the Executive Council in case of exceptionally brilliant candidates on the recommendation of relevant Standing Committee The Standing Committee reserves the right to consider suitable persons who may not formally apply Appointment will be made on probation for one year which may be waived or extended in exceptional cases and will be governed by the rules of the University as framed and/or amended from time to time Candidates already in employment should apply through proper channel Incomplete applications are liable to be rejected

Application in seven copies in prescribed form [one copy obtainable from the General Establishment Section of the University at the above address in person on all working days except Saturday between 12 noon and 3 p m or by post on sending self addressed stamped (worth Rs 5/-) envelope of 12 5 c.m x26 c m] together with a non-refundable fee of Rs. 25/- payable in Indian Postal Order in favour of 'RABINDRA BHARATI' and attested copies of SC/ST Certificate, testimonials, marksheets and certificates of examinations passed should reach the Registrar at the above address not later than **23 February 1998.**

REGISTRAR

SAMBALPUR UNIVERSITY

JYOTI VIHAR : BURLA
SAMBALPUR (ORISSA)
PIN-768 019 INDIA

ADVERTISEMENT

No. 697/Estt-IV Dated, the 13th Jan., 1998

Applications in the prescribed form from eligible Indian nationals are invited for filling up the post of Principal, University College of Engineering, Burla in the scale of pay of Rs 4,500-150-5700-200-7300/- with usual D A and other service benefits admissible to the employees of Sambalpur University as per rules Application completed in all respects should reach the undersigned by Registered Post by **28/02/1998 5.00 P.M.** at the latest Application, incomplete in any respect or received after the due date and time will summarily be rejected without assigning any reason thereof

Application form (in Seven copies) with detailed instructions are obtainable from the office of the undersigned during office hours on any working day between 11 00 A M and 4 00 P M in person on payment of Rs 70/- in the University Cash Counter (Rs 17 50p for SC & ST) or by Post by sending a crossed Bank Draft of the same value drawn in favour of Comptroller of Finance, Sambalpur University payable at S B I, Jyoti Vihar or U Co Bank, Katapali alongwith a self addressed envelope of 30 cm x 12 cm size affixed with postage stamp of Rs 16/-

Candidates abroad may apply on plain paper furnishing their curriculum vitae in seven copies This advertisement does not make it binding on the University to make appointment

In-service candidates should submit one set of the application through proper channel

Essential Qualification and Experience

1 Ph D with first class Bachelor's or Master's degree in Engineering/Technology,

OR

Ph D Degree with first Class Bachelor's or Master's degree in appropriate branch for teaching Posts in Humanities and Sciences

2 Ten (10) years distinguished experience in teaching/Industry/research out of which 5 years must be at the level of Asst Professor or equivalent

Note : Candidates from Industry/Profession with recognised professional work of high standard recognised at National/International level equivalent to Doctorate would also be eligible

In addition to the above, the candidate should have administrative experience of some years in a responsible position

B. Behera
REGISTRAR

UNITED WORLD COLLEGE
1998 SELECTIONS

Applications are invited for the September 1998 entry to the United World Colleges situated in Canada, India, Italy, Hong Kong, Norway, Singapore, Swaziland, U.K. and U.S.A.

The United World Colleges ◆ provide a two year high quality educational programme leading to the International Baccalaureats (I.B.) Diploma which is recognised as an equivalent to the 12th Std. by the Association of Indian Universities ◆ offer an international, co-educational and residential environment for students from over 100 countries world-wide ◆ aim to further international understanding by making education a force to unite nations and people.

Entry to the colleges is based solely on personal merit A number of full and half scholarships are available to selected students. There are 10 places available overseas and some 25 at the Mahindra College.

To apply, you must be an Indian Citizen and should ◆ have been born on or between 1st September 1980 and 1st September 1982 ◆ have appeared for the 10th Std. examination, or due to appear by March/April 1998 latest ◆ have demonstrated originality rather than successful rote learning ◆ be involved in extra-curricular activities, whether spending, aesthetic, practical or intellectual ◆ be prepared to be an outgoing and articulate representative of your country.

Interested applicants should write for application forms to : Capt. Raj Mohindra, United World Colleges, Indian National Committee, Mahindra Towers, Road No. 13, Worli, Mumbai-400 018

Enclose with your request ◆ a self-addressed envelope (24 cm x 11 cm) affixed with a Rs. 8/- stamp ◆ a demand draft of Rs. 100/- drawn in favour of "The Mahindra United World College of India", payable in Mumbai.

APPLICATIONS MUST REACH ON OR BEFORE 6TH MARCH 1998.
INTERVIEWS WILL BE HELD IN APRIL 1998 AT MUMBAI.

ASSOCIATION OF INDIAN UNIVERSITIES
Display & Sale of Books in 13th New Delhi World Book Fair
February 7-14, 1998

The Publications of 29 member universities/institutes listed below and those of the Association of Indian Universities (AIU) will be displayed at the 13th New Delhi World Book Fair being organised by the National Book Trust (India) at Pragati Maidan, New Delhi from February 7-14, 1998 All are cordially invited to visit **AIU Stall No. 333 to 336 in Hall No. 3.**

1. Aligarh Muslim University, Aligarh
2. Andhra University, Visakhapatnam
3. University of Burdwan, Burdwan
4. Central Institute of English & Foreign Languages, Hyderabad
5. Ch. Charan Singh Haryana Agricultural University, Hisar
6. Dayalbagh Educational Institute, Dayalbagh, Agra
7. Gandhigram Rural Institute, Gandhigram
8. Gujarat University, Ahmedabad
9. Gujarat Vidyapith, Ahmedabad
10. Gurukula Kangri Vishwavidyalaya, Hardwar
11. Indira Gandhi National Open University, New Delhi
12. Indira Kala Sangit Vishwavidyalaya, Khairagarh
13. Jadavpur University, Calcutta
14. Jamia Hamdard, New Delhi
15. Kannada University, Kamalapura
16. M.S. University of Baroda, Vadodara
17. Mahatma Gandhi University, Kottayam
18. Mahatma Gandhi Kashi Vidyapeeth, Varanasi
19. Mother Teresa Women's University, Kodaikanal
20. National Law School of India University, Bangalore
21. University of North Bengal, Raja Rammohunpur
22. University of Pune, Pune
23. Rashtriya Sanskrit Vidyapeeth, Tirupati
24. University of Roorkee, Roorkee
25. Sardar Patel University, Vallabh Vidyanagar
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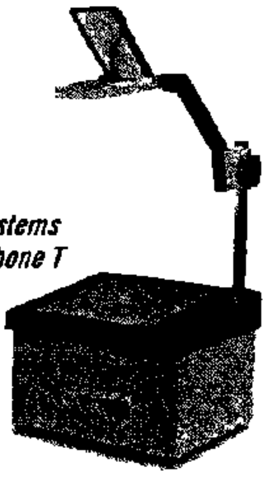
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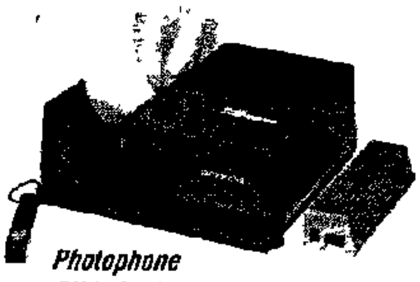
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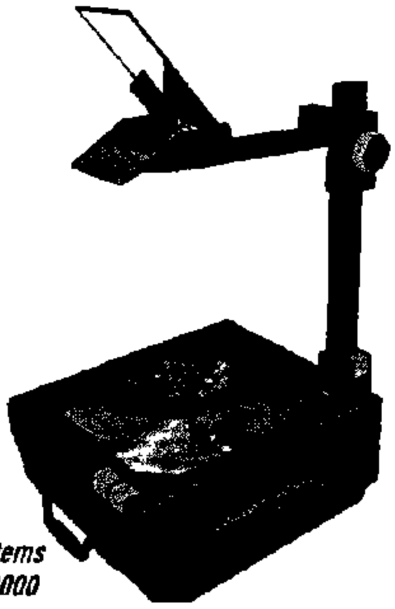
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